**上海法院专利审判白皮书**

**White Paper on Trail of Patent Cases
by Shanghai Courts**

**上海市高级人民法院**

**Shanghai High People’s Court**

**二O二O年四月二十三日**

**April 23, 2020**

**目录**

[**一、上海法院专利案件总体情况 4**](#_Toc1057312516_WPSOffice_Level1)

[**二、不断加强专利权利司法保护 1**](#_Toc1057312516_WPSOffice_Level1)**5**

[**三、不断加强专利裁判规则探索 24**](#_Toc1971761134_WPSOffice_Level1)

[**四、不断深化专利审判机制改革 32**](#_Toc1569222281_WPSOffice_Level1)

[**五、不断加强专利审判能力提升** **38**](#_Toc672207960_WPSOffice_Level1)

**CONTENTS**

[**I. Overview of Patent Cases Handled by Shanghai Courts 42**](#_Toc672207960_WPSOffice_Level1)

[**II. Constantly Strengthening Judicial Protection of Patent 53**](#_Toc672207960_WPSOffice_Level1)

[**III. Constantly Strengthening the Exploration of Patent Trial Rules**](#_Toc672207960_WPSOffice_Level1) **63**

[**IV. Constantly Deepening the Reform regarding Patent Trial System 72**](#_Toc672207960_WPSOffice_Level1)

[**V. Constantly Enhancing Judges’ Competence in Patent Trials 7**](#_Toc672207960_WPSOffice_Level1)**8**

**上海法院专利审判白皮书**

1985年4月1日《中华人民共和国专利法》正式施行，今年适逢专利法施行三十五周年。三十五年来，上海法院专利审判工作开拓进取、勇立潮头，经历了一条从无到有、从起步到发展、从敢于探索到追求卓越的发展道路；上海法院在专利审判工作中始终坚持依法保护、平等保护、加强保护、激励创新的原则，精心审理各类专利案件，不断完善审判机制，积极探索裁判规则，努力破解疑难问题，稳步提高工作水平。1985年至2019年期间，上海法院共受理一审专利案件7,075件，审结6,490件；近十年来即2010年至2019年期间，上海法院一审共受理各类专利侵权案件4,413件，其中三类主要案件类型的侵害发明专利权纠纷案件1,025件，侵害实用新型专利权纠纷案件1,091件，侵害外观设计专利权纠纷案件2,263件。专利案件的审判，切实回应了权利人和市场主体对于专利技术、创新创造的司法保护需求，为推动国家创新驱动发展战略以及上海具有全球影响力的科技创新中心建设提供了有力的司法服务和保障。

一、上海法院专利案件总体情况

**（一）收案数量不断上升。**1986年，上海法院受理首起专利案件后，在1989年前每年受理的一审专利纠纷案件均不超过10件。上世纪九十年代，上海法院受理的一审专利纠纷案件呈现出逐年递增的态势，专利保护需求快速增长。2000年，上海法院一审专利案件受理数量首次突破100件，此后十年间每年均保持在100至200件的收案水平，呈现出平稳均衡的态势。近十年，即2010年至2019年，上海法院共受理一审专利案件4,836件，年均增长幅度22.86%，每年受理的案件量呈现出稳步增长的态势。这表明权利人和市场主体的专利权利意识不断增强，也体现出司法保护专利权、解决专利纠纷成为专利权人的主要选择。

图1：上海法院一审专利案件年收案情况

**（二）案件整体比重呈下降趋势。**三十五年来，上海法院专利案件总数不断上升，但专利案件在知识产权民事纠纷案件中所占比例呈现出不断下降的趋势。在1995年以前，专利一审案件年收案数约占全部知识产权一审案件总数的40%，1995年达到了45.3%。自1995年起，该比例开始呈现下降态势。2002年以后，专利案件占知识产权案件总量比例下降至第二位，次于著作权案件；2008年该比例下降到第三位，位居著作权和商标权案件之后。尤其是近十年来，随着著作权纠纷、商标权纠纷等其他知识产权案件的井喷式增长，以及各种新类型知识产权纠纷的不断涌现，上海法院一审专利案件的收案比例逐年下降，到2018年仅占知识产权案件总体比例的2.78%。2019年该比重虽有所反弹，但总体仍处于历史低位。

图2：1995年以来上海法院一审专利案件收案
占一审知识产权民事案件收案比重情况

**（三）侵权案件始终占据绝对多数。**专利民事案件包括专利侵权纠纷、专利权属纠纷、专利合同纠纷等类型。1991年以前上海法院受理的专利案件均为专利侵权纠纷，1992年开始受理专利权属和专利合同纠纷案件，但侵权纠纷案件一直是专利案件的主要类型，1996年至2019年，上海法院受理的一审专利侵权案件基本维持在同期专利纠纷案件的90%左右。这反映出上海法院专利审判的工作重心多年来始终在于依法保护权利人的合法权益免受不法侵害。

图3：2002年以来上海法院一审专利侵权案件收案
占一审专利案件收案比重情况

**（四）外观设计专利侵权案件占比较高。**一审专利侵权案件中，侵害外观设计专利权纠纷案件始终居高不下，并长期保持在专利侵权案件的50%左右，以2015年至2019年为例，上海法院共受理一审侵害外观设计专利权纠纷1,497件，占同期一审专利侵权案件的52.47%，而从近十年来看，该比例为51.28%。其原因在于外观设计专利授权及维权的门槛都相对较低。该类案件的特点表现为：1.由于外观设计专利授权无须经过实质性审查，故较多外观设计专利的权利状态并不稳定，存在被无效的可能；2.外观设计专利案件审理遵循“整体观察、综合判断”的比对原则，在侵权认定和责任判定上相对具有一定主观性并进而产生差异，这在相关法律规定明确前尤为明显；3.相当一部分作为产品销售商的被告系个体工商户，批量维权现象比较突出。

图4：近十年上海法院一审受理的不同专利侵权案件占比情况

**（五）发明专利侵权纠纷近年来增势明显。**发明专利一直是专利领域科技含量最高、创新程度最强的技术载体。2010年至2014年，上海法院审理的发明专利案件年均增长幅度仅有0.6%。2015年，上海正式启动科创中心建设，当年上海法院一审发明专利侵权纠纷案件受理数量较上一年大幅增长52.1%，此后的年均增长幅度为25.9%。这充分表明随着上海科创中心建设的深入推进，发明技术类纠纷大幅增加，权利人保护技术创新的意识也日益增强。

图5：2014年以来上海法院一审发明专利侵权案件收案情况

**（六）当事人取证方式日趋多元。**在专利侵权诉讼中，被控侵权产品是否落入专利权保护范围是判定专利侵权成立的主要依据，因此权利人取得实物证据成为提起专利侵权诉讼的关键前提。囿于技术的发展水平，传统取证方式相对较为单一，往往通过实地购买产品的方式进行。近十年来，随着我国电子商务特别是移动互联网的高速发展，网络交易量逐年递增。网络交易因具有地域可选择、获取信息便捷、隐蔽性较高、取证成本较低等特点，使得当事人可以通过网络交易平台购买证物、并公证保全该证物及购买的全过程，该种固定侵权证据的方式已经成为专利侵权诉讼取证的主要途径，这在上海法院近年来受理的侵害外观设计和实用新型专利权纠纷案件中表现尤为明显。2010年上海世博会后，上海已经成为国内外各行业举办展会的重要选择地，专利权人经常在展会期间通过公证或诉讼保全固定被告实施销售、许诺销售侵权产品的证据，并据此向上海法院提出专利侵权诉讼。据统计，上海知识产权法院2015年以来受理的诉前证据保全案件中，查封、扣押一方当事人在上海举办的展会上展示产品的情况占到总量的70%以上。

**（七）诉讼标的额不断增大，大标的额案件不断涌现。**三十五年来，随着国家经济的持续高速发展和改革开放的不断深入推进，权利人及市场主体对于技术价值的认识和期待也不断提升，这在专利案件尤其是专利侵权纠纷的诉讼标的额中体现明显。一方面，专利案件标的额总体持续增长，大标的额专利案件在知识产权案件中的占比越来越高；另一方面，专利案件最大标的额不断提高。如1996年，沈有法诉上海铁路局侵犯火车自动停车器发明专利权案中，权利人请求赔偿已达5,000万元。新世纪以来，专利诉讼标的额上亿元案件不断涌现。2002年，上海迪比特实业有限公司诉摩托罗拉（中国）电子有限公司等侵犯专利权纠纷案，诉讼标的额达0.99亿元。2012年浙江龙盛集团股份有限公司诉上海典翘实业发展有限公司、浙江闰土股份有限公司侵害发明专利权纠纷案，2013年比利时索尔维公司诉江苏扬农化工集团有限公司侵害发明专利权纠纷案，2015年张耀胜诉上海东浩兰生国际服务贸易（集团）有限公司侵害发明专利权纠纷案，诉讼标的额均超过1亿元。2015年亨斯迈先进材料（瑞士）有限公司诉浙江龙盛集团股份有限公司等侵害发明专利权纠纷案以及2018年上海思立微电子科技有限公司诉深圳市汇顶科技股份有限公司、上海魅之族数码科技有限公司侵害发明专利权纠纷案，诉请标的额分别达到了2.31亿元和2.4亿余元。

图6：上海法院一审专利案件最大诉讼标的额情况

**（八）涉外涉港澳台案件稳步增长，影响力持续扩大。**2001年我国加入世界贸易组织后，上海法院受理的涉外涉港澳台专利案件数量稳步上升，近五年来更是呈现增长放大的趋势。如2015年至2019年上海法院审结的涉外涉港澳台专利案件较2010年至2014年增长43.91%。再以上海知识产权法院为例，该院自2015年1月履职以来，截至2019年底，受理的涉外涉港澳台专利案件占同期各类专利案件的14.26%。这些都充分表明涉外专利案件在上海法院受理的知识产权纠纷中占据重要位置。同时，近十年来上海法院审理的涉外涉港澳台专利案件呈现出以下特点：1.涉及的国家和地区越来越广泛，且主要集中在科技创新水平相对较高的发达国家，如美国、英国、德国、法国、荷兰、瑞士、比利时、瑞典、芬兰、奥地利、卢森堡、西班牙、加拿大、日本、韩国等；2.涉及的境外企业影响力较大，许多是所在行业的国际知名企业，如美国苹果公司、美国惠普发展公司、德国碧然德公司、德国巴斯夫公司、荷兰飞利浦公司、瑞士亨斯迈公司、瑞典沃尔沃公司、芬兰诺基亚公司、日本三菱电机株式会社、日本本田技研工业株式会社等；3.涉外案件以境外权利人向境内制造商或销售商提起专利诉讼为主要形式，不过随着近年来上海致力于打造亚太地区知识产权诉讼优选地工作的不断推进，部分案件已经出现了专利权人和被控侵权产品的制造者均为国外企业，仅销售者是境内企业的情形，如美国意美森公司诉美国菲比特公司等侵害智能手环发明专利权纠纷案件等。

图7：近十年上海法院审结涉外涉港澳台专利案件情况

**（九）涉及的技术领域越发广泛。**2000年以前，上海法院受理的专利案件主要集中在机械制造领域。新世纪二十年来，专利纠纷领域呈现明显扩大趋势，除机械外，还涉及通信、电子、集成电路、建材、家居、染料、电器、食品、药品、纺织、汽车等多个领域。2015年以来，上海法院受理的专利案件还触及了基因技术、4G通讯、共享单车、计算机软件、手机芯片等多个新兴或细分技术领域。如加拿大DNA吉诺特克公司诉上海人类基因组研究中心等侵害发明专利权纠纷案，涉及侵害人类基因测试技术专利；德国西门子公司诉魅族、小米、金立等公司侵害发明专利权纠纷系列案件，涉及4G技术的标准必要专利；胡涛诉摩拜（北京）信息技术有限公司侵害发明专利权纠纷案，涉及共享单车的二维码识别与解锁专利技术；北京搜狗科技发展有限公司诉北京百度网讯科技有限公司侵害发明专利权纠纷案，是一起类型新颖的知名互联网企业间涉及网络平台输入法的发明专利侵权诉讼；上海宣普实业有限公司诉联发科技股份有限公司等侵害发明专利权系列案件，涉及手机处理芯片技术的侵权判定；弗拉克托斯公司诉维沃公司等侵害发明专利权纠纷案，涉及手机天线技术的专利侵权等。这些案件的出现和妥善审理反映出当前专利案件所涉技术领域趋向尖端，技术事实日益复杂，专利司法保护在各技术领域的重要性充分显现。

**（十）案件判决结案比例稳定且保持在合理区间。**上海法院一审专利案件的判决率始终稳定保持在一个相对合理的区间。2002年至2019年，上海法院审结的一审专利纠纷案件中，判决所占比例为30.26%，且呈现较为平稳的态势。而同期上海法院审结的一审知识产权案件的判决比例仅为11.79%。这充分表明，上海法院在坚持依法促进调解、推动知识产权纠纷实质化解的同时，专利纠纷因其专业性较强、技术事实较为复杂，许多案件当事人更希望法院通过判决来明晰包括权利保护范围、侵权成立与否等相关技术事实和专业问题。

图8：2002年以来上海法院一审专利案件结案方式情况

**（十一）专利侵权案件审理周期相对较长。**与其他类型知识产权案件相比，以判决方式结案的专利案件的审理周期相对较长，其中侵害发明专利权纠纷案件的审理周期相对最长。以上海市第二中级人民法院为例，2009年至2013年期间该院判决的专利案件的平均审理周期为206.1天，其中侵害发明专利权纠纷案件平均审理周期为296.7天，而同期该院审结的一审知识产权案件平均审理周期为160天。再以上海知识产权法院情况为例，2015年至2018年底，该院审结专利案件的平均审理周期为237天，其中侵害发明专利权纠纷案件的审理周期亦最长。主要原因是：1.专利案件经常涉及司法程序与行政程序的衔接，相当一部分专利侵权诉讼的被告会同步启动涉案专利的无效宣告程序，部分案件因此需要中止审理或等待相关诉讼结果；2.发明专利侵权诉讼所涉及的技术往往较为复杂，且近年来呈现出越来越专业和复杂的趋势，许多案件需要委托技术鉴定或专家咨询，导致技术事实查明周期相对较长；3.当事人提出管辖权异议的情况较为普遍，另由于专利案件的复杂性，还涉及追加当事人或延期举证等程序性事项。

二、不断加强专利权利司法保护

**（一）精心审理各类专利案件，精品案例迭出。**三十五年来，上海法院专利审判立足上海、放眼全国，以精益求精、追求卓越的态度精心审理好每一起案件，其中有多起案件入选最高人民法院公报案例、指导性案例、中国法院知识产权司法保护十大案件和中国法院知识产权司法保护50件典型案例，为中国的专利审判做出积极贡献。其中，入选最高人民法院公报的案例有：1993年第4期的陆正明诉上海工程成套总公司、无锡市环境卫生工程实验厂专利侵权上诉案；2008年第12期的西安奥克自动化仪表有限公司诉上海辉博自动化仪表有限公司请求确认不侵犯专利权及上海辉博自动化仪表有限公司反诉西安奥克自动化仪表有限公司专利侵权纠纷案；2009年第7期的翁立克诉上海浦东伊维燃油喷射有限公司、上海柴油机股份有限公司职务发明设计人报酬纠纷案；2011年第1期的上海全能科贸有限公司不服上海市知识产权局专利侵权纠纷处理决定案；2019年第1期的上海晨光文具股份有限公司诉得力集团有限公司等侵犯外观设计专利权纠纷案，该案于2016年亦入选了中国法院知识产权司法保护50件典型案例。入选最高人民法院指导性案例的有：2019年的瓦莱奥清洗系统公司诉厦门卢卡斯汽车配件有限公司等侵害发明专利权纠纷案。入选中国法院知识产权司法保护十大案件的有：2010年的王群诉上海世博会法国馆、中国建筑第八工程局有限公司侵犯发明专利权纠纷上诉案；2013年的圣莱科特国际集团等诉华奇（张家港）化工有限公司等侵害商业秘密和专利纠纷系列案。入选中国法院知识产权司法保护50件典型案例的还有2017年的华奇（中国）化工有限公司与圣莱科特化工（上海）有限公司恶意提起知识产权诉讼损害责任纠纷案等。

此外，近十年来，上海法院每年精心评选并向社会公布知识产权十大案件，突显案例宣传和指导价值。除上述已经入选的部分案件外，还包括美国3M公司诉浙江道明投资有限公司侵犯发明专利权纠纷案；碧然德（BRITA）有限公司诉宁波清清环保电器有限公司侵害发明专利权纠纷案；重机公司诉启翔针车（上海）有限公司专利侵权损害赔偿合同纠纷案；梁军起职务发明创造发明人、设计人奖励纠纷案；杭州耐德制冷电器厂诉东莞市创恒实业有限公司等前置过滤器专利侵权纠纷案；盛纪（上海）家居用品有限公司诉上海统一星巴克咖啡有限公司等星巴克随行杯外观设计专利侵权纠纷案；段友芦、邹荷仙诉上海新光化工有限公司侵害粘胶剂发明专利权纠纷案等。

**（二）持续加大判决赔偿力度，体现专利权利价值。**近年来，尤其是2015年上海正式启动科创中心建设以来，上海法院专利审判始终贯彻严格保护的司法政策，坚持全面赔偿原则，审理中充分考量专利权人经济损失及合理维权成本，在不断提高违法成本的同时不断体现专利权利价值。2018年，上海市高级人民法院发布了《关于加强知识产权司法保护的若干意见》，明确提出要加大侵权惩罚力度，让侵权者付出应有代价；对于法律尚未规定惩罚性赔偿的侵害专利权行为，要充分考虑侵权行为的性质和侵权人的主观恶意程度，依法加大赔偿力度。《意见》出台后，权利人维权效果进一步显现，以上海知识产权法院的侵害发明专利权案件为例，2018年认定侵权的案件平均判赔金额达74万元，较2017年同类案件提高超过50%。

涉及的典型案例：2015年，在杭州耐德制冷电器厂诉东莞市创恒实业有限公司等侵害实用新型专利权纠纷案中，法院认定被告构成侵权。在原告未能举证证明因被侵权所遭受的实际损失或者被告因侵权所获得的利益，又不能提供许可使用费以资参考，同时有证据证明被控侵权产品售价较高于同类产品售价、销售范围涉及多个知名网络平台、销售数量巨大、宣传力度较大的情况下，法院对于侵犯实用新型专利权，以法定赔偿额的上限确定被告赔偿原告经济损失及合理费用共计100万元。2017年，在段友芦、邹荷仙诉上海新光化工有限公司侵害发明专利权纠纷上诉案中，上海市高级人民法院积极引导当事人对损害赔偿数额进行举证，通过仔细核对在案证据酌情确定侵权产品销售利润率，较为准确地计算出被告向案外人销售侵权产品的所获利益，据此将一审判决的50万元赔偿金额改判为140余万元。在上海鑫百勤专用车辆有限公司起诉的侵害专利权纠纷案中，被告在另案判决认定其享有的专利权归原告所有的情况下，故意向国家知识产权局提交放弃专利权的申请，致使原告本应获得的专利权灭失。上海知识产权法院认为被告的该种行为属于恶意放弃专利权，应当赔偿原告的相应损失，并据此作出相应判决。在兄弟工业株式会社诉被告宁波舒普机电科技有限公司侵害发明专利权纠纷案中，法院一审综合案件事实酌情确定被告获利及合理费用550万，并据此明确判赔金额。2018年，在龙润机电公司诉古鳌电子公司等侵害发明专利权纠纷案中，法院根据司法审计发现被控侵权产品的毛利占比大于收入占比，证明被控侵权产品贡献了较高毛利，因此根据较高营业利润计算结果判赔300余万元的经济损失。在峰境磁选公司与磁鹰矿山机械公司侵害发明专利权案中，法院针对具体侵权行为分别适用不同的损害赔偿计算方式确定损害赔偿金额，一审认定侵权人所获得的侵权利益包括实际获得的利益以及可获得的利益，据此共计判赔120余万元。2019年，在亨斯迈先进材料（瑞士）有限公司诉浙江龙盛集团股份有限公司等侵害发明专利权纠纷案中，上海市高级人民法院应权利人申请开展司法会计鉴定，查明侵权产品销售额，并结合相关案件事实，一审酌情确定判赔金额1,400万元。在贝比赞公司与河北绿源童车有限公司侵害发明专利权纠纷案，以及斐珞尔（上海）贸易有限公司与珠海金稻电器有限公司等侵害外观设计专利权纠纷案中，上海知识产权法院在查明侵权产品销售数量的基础上，依法支持原告选择的有利于权利保护的损害赔偿计算方式，并根据原告专利产品的销售价格、同类产品的合理利润率和专利贡献度等因素，全额支持了两案原告各300万元的诉请。

**（三）探索运用先行判决，提高复杂专利案件审理效率。**针对专利案件尤其是涉及发明专利的侵权案件审理周期较长的问题，上海市高级人民法院在2018年发布的《关于加强知识产权司法保护的若干意见》中提出，对于案情事实复杂，部分事实和部分请求已经审理清楚且确有必要的，可以就该部分先行判决。2019年1月，上海知识产权法院对瓦莱奥清洗系统公司诉厦门卢卡斯汽车配件有限公司、厦门富可汽车配件有限公司、陈少强侵害发明专利权纠纷一案作出先行判决。该案审理期间，原告申请法院先行认定被控侵权产品落入涉案专利相关权利要求的保护范围，并判令三被告立即停止侵权行为。法院经审理认为，双方当事人对被控侵权产品是否落入涉案专利相关权利要求的保护范围争议较大，而该争议系该案的核心问题，直接关系到三被告应否承担侵权责任及如何确定赔偿数额等问题，原告申请法院就该问题先行做出认定，于法不悖，且有利于确定进一步审查认定该案大量赔偿证据的必要性，节约司法资源，故判决予以支持。该案是上海法院在知识产权侵权案件中首次以先行判决的方式判令被告停止侵权，也是有效缩短专利案件审理周期、充分保护专利权人权利实施、探索和完善知识产权诉讼制度的有益尝试，并在随后最高人民法院知识产权法庭的二审中被予维持。

**（四）依法适用临时措施，保障当事人合法权益。**2000年8月，修订后的专利法及后续相关司法解释为进一步强化知识产权司法保护，先后新增了诉前禁令的保护措施，即权利人或者利害关系人有证据证明他人正在或即将实施侵犯其知识产权的行为，如不及时制止，将会使其合法权益受到难以弥补的损害的，可以在起诉前向法院申请采取责令停止有关行为的措施。对此，上海法院认真贯彻执行、依法稳妥适用并及时加以总结。2006年，上海市高级人民法院召开“诉前禁令的适用研讨会”，专题调研总结诉前禁令适用问题，并在此基础上于2007年6月公布了《关于诉前禁令适用中的若干问题》的意见，从诉前禁令的适用范围、申请诉前禁令应当提供的证据材料、适用诉前禁令的条件以及诉前禁令的解除等方面对诉前禁令适用中的问题作了详尽规范，在方便当事人诉讼的同时对上海地区诉前禁令的执法标准统一起到了积极作用。

2001年，上海市第二中级人民法院受理的江苏天友保健器材有限公司申请诉前责令上海新世界股份有限公司等停止侵犯专利权的案件是上海首例申请诉前责令停止侵犯知识产权的案件。该案申请人要求被申请人停止在销售的产品上侵犯其外观设计专利权等，法院经依法审查及时作出诉前停止侵权的裁定，并采取了相应的措施。2002年5月，美国伊莱利利公司以江苏省连云港豪森制药有限公司、上海医药工业研究所已完成侵犯其两项方法发明专利的准备工作，并准备全面实施专利侵权行为为由，向法院申请诉前禁令，禁止两被申请人生产、销售或准备生产由申请人专利方法获得的产品。法院经审查作出诉前禁令裁定。该案是上海法院受理的首例外国公司申请诉前禁令的案件。此后的2007年，前述豪森药业股份有限公司因美国伊莱利利公司申请诉前禁令不当而产生损失，起诉后者财产损害赔偿纠纷案，系上海首例因申请诉前禁令不当而引发的侵权损害赔偿案件，受诉法院依法作出了相应裁判。上述涉及临时措施的上海法院首例案件均涉及专利权纠纷，可见诉讼临时措施的依法适用对于专利权司法保护的重要影响。

值得一提的是，《最高人民法院关于审查知识产权纠纷行为保全案件适用法律若干问题的规定》于2019年1月施行后，上海知识产权法院即在上海鸿研物流技术有限公司与义乌市瑞来塑业有限公司侵害发明专利权纠纷案中，准确适用该司法解释对“情况紧急”的相关定义，基于当事人的申请首次作出行为保全裁定，并至展会现场送达，及时保护了专利权人的合法权益。

**（五）依法运用证据规则和机制，破解专利诉讼“举证难”问题。**近年来，上海法院在专利审判过程中，针对举证确有困难的权利人和相关当事人，多措并举，严格依法运用各类法律规则、原则和机制，助力司法有效保护。

1.充分发挥调查令、依职权调查等措施在调查取证中的作用。针对专利侵权获利举证难，以及有的证据由第三方掌握不易获取等问题，上海法院充分发挥调查令、依职权调查取证等程序机制的作用，适当加大取证力度，减轻权利人的举证负担。如在荷兰飞利浦公司起诉的侵害外观设计专利权纠纷系列案件中，经专利权人申请，法院依法向其出具调查令，向淘宝网获取被告销售记录并进行举证，查明被控侵权产品销售规模、利润率等相关事实，确定了被告的侵权获利大于原告诉请主张的事实，最终全额支持了权利人的赔偿请求。在兄弟工业株式会社起诉的侵害发明专利权纠纷案中，法院依职权向浙江省宁波市鄞州区国家税务局调取了被告相关的销售发票，并以此为基础判令被告承担100万元的赔偿责任。

2.准确适用民事证据高度盖然性标准，依法认定法律事实。如山特维克知识产权股份有限公司诉被告浙江美安普矿山机械有限公司侵害发明专利权纠纷案中，法院在无法观察到被控侵权产品实物的情况下，根据专利权人提供的照片、录像，结合技术人员的专业知识明确了被控侵权产品的全部技术方案，最终支持了原告的诉请。

3.依法适用证据妨碍排除规则，让拒不提交证据的当事人承担相应的不利后果。如在南京光威能源科技有限公司起诉的侵害发明专利权纠纷案中，被告经释明仍未向法院提供财务账簿以查明侵权范围和侵权获利，故法院根据原告的诉讼主张和提交的证据，全额支持了原告的赔偿请求。

4.推进知识产权诉讼诚信建设。在案件审理中探索诚信诉讼告知制度，适度强化诉讼当事人的真实义务与协助义务，引导当事人在诉讼中说真话、讲真事，对不诚信诉讼行为，依法给予制裁。如在深圳市景田食品饮料有限公司起诉的侵害外观设计专利权纠纷案中，被告在审理中明确表示涉案域名不为被告所有，原告通过公证保全证明该域名确为被告所有并支付了相关公证费用。对此，法院认为在法院已明确告知各方当事人对于案件事实应如实陈述的情况下，被告在诉讼中未能遵循诚实信用原则，据此判令被告承担原告额外支出的公证保全费用。

**（六）积极稳妥开展调解工作，推动专利纠纷实质性化解。**上海法院历来重视诉讼纠纷的实质性化解工作，专利审判尤其注重调解、和解在纠纷化解中的作用，最大限度实现科技创新成果的产业化和知识产权价值的最大化。在本世纪初，上海法院即明确了相关专利案件的调解原则，主动积极做好当事人的调解工作。如在涉及海关扣押物移交处理专利侵权案件中，法院在处理专利侵权纠纷时，只要涉案产品非伪劣商品、国家管制或者禁止流通的商品，且不损害社会公共利益，当事人即可对侵权产品、模具设备等做出和解安排，包括将侵权产品、模具设备等交由原告处置，并可以在调解书中不作侵权认定。2009年，上海法院探索尝试附条件和解的新做法。在上海同宁护理用品有限公司与温州市健生日用品有限公司等侵犯实用新型专利纠纷案中，在法庭主持下，双方当事人达成协议：被告停止侵权、并赔偿损失，但如果原告享有的专利在有效期内被宣告无效，原告需要返还被告支付给原告的赔偿款项。该案以附条件和解的方式对及时处理专利纠纷案件进行了有益尝试，在充分保障双方当事人权益的情况下，提高了案件审理的效率。近年来，上海法院充分利用关联案件在当事人、侵权产品、专利权等方面的相关性，推行一揽子解决纠纷的调解方案，促进纠纷的一次性彻底解决；特别是充分利用关联案件的在先判决，发挥已决案件对后续案件的示范作用，推进后续案件的调解工作，确保双方当事人真正实现案结事了。如美国惠普发展公司诉胤嘉贸易公司侵害发明专利权纠纷系列案是上海知识产权法院成立后受理的第一案，社会关注度较高，且案件争议的技术事实较为复杂，最终在法院的主持和积极工作下，原、被告达成一揽子协议，相关系列案件均顺利化解。

三、不断加强专利裁判规则探索

上海处于中国改革开放和经济发展的前沿，新情况新问题不断涌现，以专利纠纷为重要代表的知识产权案件类型也不断变化，出现许多新类型、疑难案件。同时，我国专利法律体系也在不断建设完善当中，许多案件在审理时往往并无明确法律规定可循，需要通过法官在坚持法律原则的基础上释法明理，探索并形成相关审判规则。回顾三十五年上海专利审判的历史，上海法院始终不懈依法裁判、专业审理，探索并形成了一批得到充分认可的审判规则，为我国专利审判事业的发展做出了积极贡献。

**（一）准确解释权利要求，合理确定专利保护范围。**本着对专利法保护权利、激励创新的立法目的的理解，从专利制度“以公开换市场”的立法精神出发，强调权利要求的公示、划界作用，以此来保护社会公众对专利申请文件的合理信赖、对自身行为的合理预期。

1．坚持全面覆盖原则。在上海法院入选最高人民法院公报的西安奥克自动化仪表有限公司诉上海辉博自动化仪表有限公司请求确认不侵犯专利权纠纷一案判决中明确，如果被控侵权产品或方法包含与专利权利要求的全部技术特征相同的技术特征，或者被控侵权产品或方法的某个或某些技术特征虽与专利权利要求的对应技术特征不同但构成等同，则被控侵权产品或方法构成专利侵权，否则不构成专利侵权。这既是上海法院判决的首例请求确认不侵犯专利权纠纷案，也是上海专利审判在实践中坚持专利侵权判定全面覆盖原则的典型案例。此外，在浙江浩淼科技有限公司诉上海拯捷消防安全设备有限公司等侵害发明专利权纠纷一案中，进一步明确了专利侵权判定的基本方法是全面覆盖原则，同时技术变劣不构成侵权，即被控侵权产品的技术方案是否劣于专利技术方案不属于专利侵权判定所考虑的范围。

2．以发明目的限定权利要求。重视专利的发明目的对专利权保护范围的限定作用，如果说明书描述的发明目的没有被其他证据推翻，权利要求的解释应当符合说明书对发明目的的描述，属于专利技术所要克服的现有技术缺陷或者不足的技术方案不应被纳入保护范围。在王群诉上海世博会法国馆等侵犯发明专利权纠纷案中，根据原告发明专利说明书的记载，该发明的背景技术是现有技术在单位建设用地上能建的建筑面积不多，高层建筑在单位建设用地面积上虽然能建面积较多但又相对封闭，影响到人与自然的交流和人际交流。发明的有益效果即在于扩张单位建设用地面积上的建筑面积，同时改善居住的交流性和舒适度，而实现上述发明目的和效果的技术手段就是“将房屋布置在空间支架的四周空间”。根据专利说明书的上述解释，将房屋单元建设在空间支架的四周空间，即从空间支架表面延伸至其四周，是实现该发明目的的一个重要技术手段。法国馆建筑物的建造方式有可能改善房屋交流性和舒适度，但并不能在单位建设用地面积上建设较多面积建筑，因为其并没有在空间支架顶面向上延伸合理空间以外的四周空间表面布置房屋单元，因此与专利技术既不相同又不等同，不构成侵权。在宋建文诉明导（上海）电子科技有限公司等侵犯发明专利权纠纷案、兆旺科技（上海）有限公司诉新日兴股份有限公司侵害实用新型专利权纠纷案等案件中，法院结合说明书对发明目的的描述来解释权利要求，没有将专利技术所要克服的现有技术缺陷或者不足的技术方案不应被纳入保护范围。

3．通过说明书记载的具体实施方式确定功能性技术特征的内容。考虑到专利权保护范围应该清晰、确定，权利要求撰写中应该尽量用产品的结构或者方法的步骤来表征一项发明的直接特征，只有确实不能用结构特征、工艺过程等特征进行描述，或者用功能性特征描述比用结构特征、工艺过程等特征描述更清楚的情况下，才可在权利要求中采用功能性特征。上海法院在涉功能性特征权利要求的专利侵权案件中探索功能性特征的解释规则，以说明书和附图描述的具体实施方式及其等同的实施方式限定功能性特征的内容，以促使专利申请人尽量避免在权利要求中采用功能性特征。在梁锦水诉李昌众等实用新型专利侵权纠纷案中，法院认为，权利要求中记载的功能性特征，应当被解释为仅仅覆盖了说明书记载的实现该功能的具体方式及其等同方式。被诉侵权产品相关技术特征与涉案专利权利要求中功能性特征所记载实施方式既不相同，也不等同，没有落入涉案专利权保护范围。在曲胜波诉新世界（中国）科技传媒有限公司等侵害“多线路公交电子站牌”实用新型专利权纠纷一案中，法院进一步认为，对于功能性特征如果没有记载具体实施方式，则无法确定其保护范围，由于涉案专利说明书没有关于“到站预报电子显示屏”实现“到站预报”功能的具体实施方式的描述，不能确定涉案专利权利要求中技术特征“到站预报电子显示屏”的内容，进而也无法确定涉案专利权利要求的保护范围，由于涉案专利权利要求的保护范围不能确定，故无论被控的技术方案如何，侵权指控均不能成立。

4．通过判决更正明显的撰写错误。考虑到权利要求撰写中确实存在笔误或其他撰写错误的情形，以及专利授权审查程序对申请人修改机会的限制，为保护创新和防止利用撰写错误恶意侵权，从实现实质正义的目的出发，在涉及权利要求撰写错误的案件中，如发现权利要求特定用语的表述存在明显错误，本领域普通技术人员能够根据说明书和附图的相应记载明确、直接、毫无疑义地修正权利要求的该特定用语的含义的，即根据修正后的含义进行解释。如在北京西科盛世通会展设备制造有限公司诉广州恒美酒店家具制造有限公司侵害发明专利权纠纷案中，法院结合权利人PCT申请文献、专利说明书附图，认定权利要求中一处技术特征撰写属于明显错误，本领域普通技术人员能够根据说明书和附图的相应记载明确、直接、毫无疑义地认识到，该处技术特征应该采用权利人在PCT申请文献中的表述而不存在其他的含义，在权利要求解释中应对此予以修改，法院据此更正了权利要求中的撰写错误，按照正确的含义认定被控侵权产品技术特征落入专利权保护范围。

**（二）准确把握等同侵权适用条件，严格适用等同原则。**由于等同侵权判断往往处于专利权与公有领域界限模糊的地带，应当在激励创新与鼓励自由竞争之间取得平衡，划定和适用的法律界限应当有利于营造宽松的创新环境、有利于提高自主创新能力和国家的核心竞争力，因此总体上对于等同侵权采用相对比较严格的认定标准。

1．严格把握等同技术特征认定中必须同时满足“三基本”和“显而易见”标准。坚持等同侵权判断中手段、功能和效果基本相同并且对所属领域普通技术人员显而易见为必要条件，适度从严把握等同侵权的适用条件，防止等同侵权的过度适用。在上海金地金属制品厂诉上海亘元金属制品有限公司侵害发明专利权纠纷案中，法院认定，被控侵权技术方案与涉案专利技术特征以基本相同的手段，实现基本相同的功能，达到基本相同的效果，但显然超出本领域普通技术人员无须经过创造性劳动就能够联想到的范畴，不应纳入与权利要求中相关技术特征的等同技术范围之内。在其他一些案件中，如村田机械株式会社诉江阴市华方新技术科研有限公司侵害发明专利权纠纷案、三井金属爱科特（上海）管理有限公司诉烟台三环锁业集团股份有限公司等侵害发明专利权纠纷案等，法院也严格依法未作出等同技术认定。

2．以禁止反悔规则限制等同侵权认定。对于权利人在专利授权确权程序中所做的实质性限制，在侵权诉讼中禁止权利人反悔，不将有关技术内容纳入保护范围。在重机株式会社诉上海力佳缝纫机有限公司侵害“缝纫机用针摆动图案变换装置”发明专利权纠纷案中，法院认为，由于专利权人在涉案专利授权审查程序中明确放弃权利要求中相应技术特征，故即使被控侵权产品中含有与相应技术特征等同的技术特征，该案也不得再以前述相应技术特征等同为由，认定等同侵权成立。

**（三）准确适用现有技术抗辩，合理平衡各方利益。**基于现有技术抗辩制度的设计目的在于防止实施公知技术人受到不当授权专利权人的侵权指控，上海法院始终重视被告提出现有技术抗辩的权利。一方面，为避免被控侵权人迫于无奈提起无效宣告程序的程序之繁和时间延滞，尽量保障现有技术抗辩能有效实现。另一方面，考虑到我国专利司法制度的构架，保证专利效力判断的统一性，将现有技术抗辩中的判断限制于新颖性判断和最低限度的创造性判断。

1．明确现有技术抗辩应采用整体技术方案对比。在上海兆邦电力器材有限公司诉上海正耐电力科技有限公司侵害“防雷支柱绝缘子”发明专利权纠纷案中，法院认为，现有技术的抗辩是将单独的一项技术方案与被控侵权产品的技术方案相比较，而不是将现有技术方案中一项技术特征与被控侵权产品技术方案中的一项技术特征相比，由此否定了被告关于比对的相应意见。

2．明确现有技术抗辩中的对比技术应限于一项现有技术或者一项现有技术与公知常识简单结合。在杭州赛诺菲安万特民生制药有限公司诉深圳海王药业有限公司等侵犯“一种药学上稳定的奥沙利铂制剂”发明专利权纠纷一案中，原告主张以权利要求4作为该案专利的保护范围，该权利要求4是在引用权利要求2的基础上增加了“可以即时使用并装在一个气密的容器中”的技术特征。虽然被控侵权产品落入了专利权利要求4的保护范围，但被告主张现有技术抗辩，认为其技术方案是现有技术与公知常识的简单结合。法院经审理认为，由于权利要求2已被终审裁判宣告无效，因此，权利要求2的技术方案属于现有技术，任何人都可以自由实施，并可以自由地将该技术方案与公知常识简单结合后予以实施。被告系使用权利要求2的现有技术方案制造注射液，并采用无色玻璃安瓿作为注射液的容器，而采用无色玻璃安瓿作为注射液的容器属于药剂学教材公开的注射液使用和放置的公知常识。因此，即使被控侵权产品的技术方案落入权利要求4的保护范围，也不应当认定被告构成侵权，否则不符合专利保护的目的，也不利于保护社会公共利益。

**（四）准确把握外观设计侵权认定标准，依法加强外观设计专利保护**

1．将外观设计专利记载的图片或者照片为依据确定保护范围。审理侵害外观设计专利权纠纷案件中，在简要说明与专利图片或照片不一致时，以外观设计专利的图片和照片为准。在简要说明与专利图片、照片不冲突时，将简要说明作为帮助判断被控侵权设计与专利外观设计是否构成实质性相似的依据。在佛山市顺德区新生源电器有限公司诉上海美欣塑胶制品有限公司侵害外观设计专利权纠纷中，尽管简要说明中记载了鼓风机外壳采用透明材料，但是从该外观设计专利的图片中却看不出透明外壳下的内部结构，法院认为，该外观设计专利明确的保护范围就是图片所显示的形状、图案、色彩，而不能将本领域通常所知的一种或几种鼓风机的内部结构视为该外观设计专利保护范围的一部分，在相同、近似比较时自然不能将由该通常所知的一种或几种内部结构所产生的视觉效果考虑在内，应仅根据鼓风机外部特征进行比对。

2．外观设计近似性判断标准的把握。在上海晨光文具股份有限公司诉得力集团有限公司等侵害外观设计专利权纠纷案中，涉案产品为日常生活中常见的笔类产品，其外观设计侵权判断受主观因素的影响较大。该案对外观设计近似性判断的客观标准进行了探索，既考虑被诉侵权产品与授权专利的相似性，也考虑其差异性，就相同设计特征与区别设计特征对整体视觉效果的影响分别进行分析，并明确未付出创造性劳动，通过在授权外观设计的基础上，改变或添加不具有实质性区别的设计元素以及图案和色彩实施外观设计专利的，构成对外观设计专利权的侵犯。

3．将无效宣告请求审查决定书作为侵权判定的重要参考依据。在对被控侵权设计与专利外观设计是否构成实质性相似的判定中，通常会将专利复审委就该专利作出的无效宣告请求审查决定书作为重要参考，借鉴其中关于专利的区别设计、设计要点、设计空间以及相似性比较等内容。

**（五）准确认定职务发明报酬计算，有效保障发明人权益。**通过审理职务发明创造发明人、设计人奖励纠纷，明确职务发明人报酬计算的重要依据。在上海法院入选最高人民法院公报的翁立克诉上海浦东伊维燃油喷射有限公司等职务发明设计人报酬纠纷案中明确，专利权被宣告无效不当然免除专利权人的报酬支付义务，职务发明设计人可主张专利权有效期内的报酬。同时，作为零部件的专利在产品中的技术贡献率可作为确定所应用的专利对应收益的计算依据。在梁军起职务发明创造发明人、设计人奖励纠纷案中，明确了在单位对职务发明创造的奖励数额已通过规章制度予以规定的情况下，法院在审理认定时，有具体数额从具体数额，若仅为幅度，则可依据该幅度并结合具体专利的实施情况、创造性等因素酌情确定具体数额，不应直接适用专利法规定的最低奖励标准。

四、不断深化专利审判机制改革

**（一）完善审判机构建设，落实专利审判组织保障。**1994年2月，经上海市人大常委会批准，上海市高级人民法院、中级人民法院同时成立知识产权审判庭，集中审理知识产权民事案件，上海法院知识产权审判工作开始迈入专业化发展轨道。1995年7月，原上海市中级人民法院撤销，成立上海市第一、第二中级人民法院，相应设立第一中级人民法院知识产权审判庭和第二中级人民法院知识产权审判庭；由此，相关中级人民法院负责审理各类专利一审民事案件，上海市高级人民法院负责审理专利二审民事案件和本辖区具有重大影响的专利一审民事案件。2014年12月，根据十八届三中全会关于“探索建立知识产权法院”以及全国人大常委会《关于在北京、上海、广州设立知识产权法院的决定》的战略部署，同时配合上海建设具有全球影响力的科技创新中心的需要，上海知识产权法院正式成立，明确集中管辖诉讼标的额在1亿元以下且当事人一方住所地不在上海市或者涉外、涉港澳台，以及诉讼标的额在2亿元以下且当事人住所地均在上海市的专利等技术类第一审民事案件，实现了专利审判体制的新突破。截至2019年底，上海知识产权法院成立以来五年间共受理各类一审专利纠纷案件3,166件，审结2,574件，结案标的逾亿元，为专业化、规范化的专利司法保护工作发挥了重要职能作用。

**（二）构建多元化技术事实查明体系，为专利技术事实查明提供专业支撑。**专利案件涉及专业技术问题，法官囿于专业背景限制，案件中所涉及的技术事实调查往往需要借助外部专业力量予以解决。1996年9月，上海市高级人民法院聘请了8位相关科技领域公认的具有较高知名度的技术专家作为人民陪审员，从而开启了上海法院技术事实查明体系构建的新路。此后在1999年1月、2002年9月、2005年8月，上海法院又先后聘请了三届知识产权咨询专家，通过向法院对案件事实提供咨询意见或参与陪审等形式，帮助法院查明技术事实。2000年，时任全国人大代表、已故知识产权法学家郑成思认为，上海法院聘请了一批在全国有影响的知识产权咨询专家，这一做法有助于实现知识产权审判的公正和效率，因此向全国人大提交议案，建议最高人民法院推广上海法院聘请咨询专家的做法。2009年12月，上海市高级人民法院建立“上海法院知识产权审判技术咨询专家库”，聘请国内在电子、通信、机械、化工等领域的62位知名专家担任技术咨询专家，以便在审理以专利侵权纠纷为代表的知识产权案件过程中帮助法官就技术事实予以查明。2010年，上海市高级人民法院进一步发布《关于上海法院知识产权审判技术咨询专家库使用办法的解答》，对于需要向技术专家咨询的情形、法院确定及委托技术咨询专家的程序、技术咨询专家的权利和义务等问题进行了规定。

2015年以来，上海知识产权法院探索建立技术调查官制度，设立技术调查室，并先后制定《技术调查官参与诉讼活动工作规则》《特邀科学技术咨询专家咨询办法》《人民陪审员参加审判活动管理办法》《关于在知识产权民事诉讼中涉及技术事实司法鉴定的操作指引》《技术审查意见适度公开规则》（试行）等技术事实查明规则，形成了技术调查、技术咨询、专家陪审和技术鉴定“四位一体”的技术事实调查认定体系，技术事实查明的中立性、客观性和科学性进一步提高，技术调查官参与诉讼成为常态。上海知识产权法院聘任了13名技术调查官，其中常驻交流技术调查官2名，兼职11名，具有高级职称的专家9名，都是来自国家机关、行业协会、高等院校、科研机构等单位的专业技术人员，涵盖了材料、化工、电子、通信、网络、光电、医药和通讯等专业技术领域。以2017年、2018年为例，上海知识产权法院专利咨询193件次，13件案件指派技术调查官出庭。在上海新诤信知识产权服务股份有限公司起诉侵害发明专利权纠纷案件中，技术调查官和专家陪审员共同参与案件审理，技术调查官侧重于庭前准备阶段对技术争议事实的梳理与明确，专家陪审员则侧重于庭审阶段对案件技术争议事实的调查。在此基础上，技术争议事实得以准确查明，最终双方达成庭外和解并撤诉结案，同时该案还促成了其他三起关联案件的顺利审结，“四位一体”技术事实查明体系的灵活运用取得良好效果。2018年，上海法院进一步推动高院知产技术专家库和知产法院技术咨询专家库“两库合并”，建立全市法院技术类案件技术事实查明共享机制，服务全市法院技术类知产案件审判。对此，《人民日报》刊登了专题报道《法院来了技术调查官》，取得良好社会效果。

**（三）规范特有诉讼程序设置，引导专利权人充分表达诉求。**专利案件往往涉及权利保护范围的确定和技术特征或设计特征的比对，因此其诉讼程序较其他民事案件而言具有特殊性。上海法院专利审判在相应诉讼程序的规范运行上较早开展探索实践，取得积极成效。

1.规范预备庭审理模式，通过召开预备庭（庭前会议）确定权利要求的保护范围。原告专利保护范围的确定是认定侵权与否的关键要素，对此，上海法院较早借鉴美国司法制度，通过召开预备庭的方式要求双方就权利要求如何解释、权利要求的保护范围如何界定进行控辩。通过这一程序，一方面先行固定原告权利要求的保护范围，在此基础上进行技术比对；另一方面，部分案件经过该程序，当事人对于被控侵权产品是否落入专利保护范围已明确，有助于促进双方达成和解。

2.规范技术鉴定程序。专利侵权案件中，较多发明专利和部分实用新型专利涉及技术鉴定问题。为提高审判质效，上海法院较早对鉴定中涉及的程序性问题进行了规范。2008年10月，上海市高级人民法院出台《关于知识产权民事诉讼中涉及司法鉴定若干问题的意见》，明确包括专利案件在内的知识产权诉讼司法鉴定规范化程序，包括召集双方当事人确定鉴定范围；通常由法院指定鉴定机构，出具鉴定函并提供鉴材；以及在鉴定机构出具鉴定报告前，合议庭预先阅读并提出修改意见等。

3.规范现场勘验程序。在专利案件中，对于大型被控侵权产品往往需要进行现场勘验。上海法院较早对此进行了规范，包括现场封存，以解决证物及现场被破坏的问题；使用录音、录像等电子设备手段对勘验场景进行录制，以便后续技术比对分析工作等要求。

4.积极探索裁判文书式样改革。在全国法院中，上海法院较早开展在判决书后附录外观设计等图样，以增强外观设计专利侵权案件判决书的说服力和权威性。

**（四）出台审判规范性业务文件，强化专利案件审理指导。**上海法院专利审判坚持边审判、边探索、边调研、边总结的工作思路，贯彻审判指导规范化的工作原则，上海市高级人民法院先后出台了一系列涉及专利审判的规范性业务文件，为专利案件规范审理提供支撑。2007年，出台《发明与实用新型专利侵权诉讼中现有技术抗辩认定的若干意见》，对于可用于抗辩的现有技术、现有技术抗辩的适用范围及判定规则、被控侵权技术方案与现有技术的具体比较等问题提出意见。2008年至2011年，分阶段陆续发布四期《专利权纠纷中若干法律问题解答》，较为全面地梳理了上海专利审判多年来遇到的问题，并严格依照专利法及相关司法解释的规定，结合上海专利审判实践和总结调研，相对较早地进行了系统性解答，包括发明或者实用新型独立权利要求如何构成、开放式及封闭式权利要求保护范围如何确定、含功能或者效果特征的权利要求保护范围如何确定、如何认定被控侵权产品外观与专利外观设计相同或者近似等问题。2010年，发布《关于知识产权侵权纠纷中适用法定赔偿方法确定赔偿数额的若干问题的意见（试行）》，对专利侵权诉讼中，可以衡量专利权权利价值的因素做出梳理，并对专利侵权案件中赔偿数额的确定提出了相应意见。2011年，发布《专利侵权纠纷审理指引（2011）》针对当时审判实践中积累的一些难点问题，通过总结一段时间专利案件审判经验提出，涵盖产品权利要求中的方法特征对权利要求保护范围的界定具有限定作用等23个结论性观点，为当时及之后的上海专利审判工作提供指引。2013年，发布《职务发明创造发明人或设计人奖励、报酬纠纷审理指引》，针对专利法最新修订后《专利法实施细则》对职务发明创造发明人或设计人奖励、报酬的制度作的相关修改，并因此成为法院专利案件审理中新难点的情况，经过梳理总结和专项调研，对该类案件作出了具体规范。2018年，配套《关于加强知识产权司法保护的若干意见》，进一步出台了《关于以法定赔偿方法确定赔偿数额若干问题的解答》，在此前相关规定的基础上，结合充分调研，对于侵犯不同类型专利权案件的赔偿额作出了具体指引，为认定法定赔偿提供了可操作性的审理指南。此外，上海知识产权法院为规范自身类案审理，在2016年制定了《侵害外观设计专利纠纷审理指引》及《关于依法确定专利侵权损害赔偿数额的若干意见》，并在2019年按照上海市高级人民法院统一部署，立项开展《外观设计专利侵权办案要件指南》编撰工作，将于2020年经审判委员会讨论通过后予以发布，有效提升专利审判规范化和专业化水平。

五、不断加强专利审判能力提升

**（一）积极开展学术调研。**多年来，上海法院始终注重总结审判经验、梳理疑难问题，并通过撰写学术课题、开展研讨交流等多种形式不断提升自身专利审判和调研能力。1.撰写学术课题。如上海市高级人民法院完成了国家知识产权局组织开展的修改专利法系列调研课题《发明与实用新型专利侵权判定标准》，最高人民法院委托研究的调研课题《专利侵权民事救济》，以及《技术标准与专利权保护的关系》《软件相关专利法律规则研究》等重点课题。2.召开学术研讨。如“技术变劣与专利侵权判定专题研讨会”，研讨技术变劣、多余指定原则、禁止反悔原则等问题；“职务发明人奖励与报酬法律问题”研讨会，研讨专利法及专利法实施细则关于职务发明创造发明人、设计人奖励与报酬规定的适用范围等问题；“专利等同侵权的司法认定研讨会”，就专利侵权认定中等同原则的适用、等同原则适用中的例外以及医药专利领域等同侵权的动向等主题进行研讨；“计算机软件专利司法保护研讨会”，就如何认定功能性技术特征、权利要求保护范围是否清楚的标准、计算机软件相关专利类案件的侵权判定规则等问题进行探讨。

**（二）不断加深专业协作与交流。**2010年初，上海市高级人民法院知识产权审判庭与国家知识产权局专利复审委员会建立了交流合作机制，双方互派人员开展工作交流，加强沟通与协调。其中，专利复审委员会定期派出审查员到上海法院进行交流指导，提供专业领域内的技术咨询意见，就案件中所涉及的疑难问题开展研讨；上海法院定期指派法官赴专利复审委员会学习取经，并定期与专利复审委员会就中止诉讼案件进行沟通。此后，专利复审委员会还专门派员来上海法院授课，就相关专利审查内容进行培训。2018年，上海市高级人民法院与专利复审委员会进一步开展合作，共同调研课题《无效程序中止的法律问题研究》并通过验收，对专利行政与司法的衔接问题进行了调研和探索。

**（三）努力强化专利法官培养。**对于专利审判队伍，上海法院一直注重吸收政治素质好、法律功底深、综合能力强、具有理工专业背景的法官纳入其中。针对专利审判中新、难问题较多的情况，定期组织专题研讨，不断提高知识产权法官的司法能力和司法水平；选派优秀专利法官赴最高人民法院知识产权法庭工作，同时邀请最高法院法官对相关审判工作予以具体指导；注重拓宽培训交流渠道，邀请来自专利复审委员会、华东政法大学、同济大学、上海大学等业界、学界的专家和学者进行授课；积极推荐法官参加境内外的学习、交流，进一步提升理论水平、开阔视野。同时，鼓励法官审理并总结精品案件，开展学术研究，参加高层次学历教育，发表专业论文，出版个人专著。目前，上海法院已建立起一支政治强、业务精、学历高、视野广、知识结构合理的专利审判法官队伍，基本为硕士研究生以上学历，部分拥有博士学历、理工科学位或海外留学背景，并曾涌现出国家知识产权库专家、全国审判业务专家、最高人民法院知识产权司法保护研究中心研究员、上海市知识产权咨询专家、上海市中青年法学家、全国优秀法官等多位知名、资深法官。

回顾过去，上海法院的专利审判发挥了司法保护的主导作用、创新了审判方法、积累了丰富的工作经验，取得了较为辉煌的成就；但面对未来，全球新一轮的技术革命和产业变革在持续推进，我国经济发展方式也在不断加快转型升级，在专利审判体制机制改革不断推进以及上海具有全球影响力科技创新中心建设不断提档升级、技术创新司法保护需求持续扩大的大背景下，上海法院专利审判所肩负的责任势必更为持重，所面临的任务也势必更加艰巨。在新的历史起点上，上海法院将继续坚持平等保护、公正高效的工作原则，充分发挥专利审判激励和保护创新、促进科技进步和社会发展的职能作用，更好回应日益增强的技术保护需求，不断加大专利司法保护力度，进一步为上海加快建设具有全球影响力的科技创新中心、建设具有国际竞争力的一流营商环境和亚太地区知识产权中心城市保驾护航。

**White Paper on Trial of Patent Cases**

**by Shanghai Courts**

This year 2020 stands out as the thirty-fifth anniversary since the *Patent Law of the People’s Republic of China* came into force on April 1, 1985. Over the past thirty-five years, Shanghai courts have constantly forged ahead to lead the adjudication of patent cases, and have experienced a development path from scratch to a certain scale, and from the courage to explore to the pursuit of excellence. Shanghai courts have always been adhering to the principles of legal protection, equal protection, strengthening protection and encouraging innovation in patent cases trial. Shanghai courts have always been carefully adjudicating all kinds of patent cases, constantly improving the mechanism of adjudication, actively exploring the rules of adjudication, solving difficult problems with hard work, and steadily improving the adjudication competency. From 1985 to 2019, Shanghai courts accepted 7,075 patent cases of first instance and concluded 6,490 of them. In the past ten years from 2010 to 2019, Shanghai courts accepted a total of 4,413 patent infringement cases of first instance, including 1,025 cases regarding infringement of invention patent, 1,091 regarding infringement of utility model patent and 2,263 regarding infringement of design patent, which account for the three major types of patent infringement. The trial of patent cases has effectively responded to the needs of patentees and market players for judicial protection of patented technology, innovation and creation, and has provided powerful judicial services and guarantees for promoting the national innovation-driven development strategy and building Shanghai into a national science and technology innovation center with global influence.

**I. Overview of Patent Cases Handled by Shanghai Courts**

**(1) Number of accepted cases keeps increasing.** After Shanghai courts accepted the first patent case in 1986, there were no more than 10 patent cases of first instance accepted each year before 1989. In the 1990s, the number of first-instance patent disputes accepted by Shanghai courts kept increasing year by year, and the demand for patent protection increased rapidly. In 2000, the number of first-instance patent cases accepted by Shanghai courts exceeded 100 for the first time, and the number of cases accepted remained 100 to 200 every year for the next ten years, showing a stable and balanced state. In recent ten years, namely from 2010 to 2019, Shanghai courts accepted 4,836 patent cases of first instance, with an average annual growth rate of 22.86%. The number of cases accepted each year showed a trend of steady growth. It shows that both the patentees and the market players have constantly enhanced their awareness towards patent rights. It also reflects that judicial protection has become the main choice for patentees to enforce patent rights and resolve patent disputes.

Figure 1: First-instance Patent Cases Annually Accepted by Shanghai Courts

**(2) Proportion of patent cases in all civil IP cases keeps declining.** Over the past thirty-five years, the total number of patent cases accepted by Shanghai courts has been increasing, but the proportion of patent cases in civil cases over intellectual property dispute has shown a declining trend. Before 1995, the number of annual patent cases of first instance accounted for 40% of the total number of intellectual property cases of first instance, reaching 45.3% in 1995. Since 1995, the proportion has begun to show a downward trend. The proportion of patent cases in the total number of intellectual property cases dropped to the second place after 2002, ranking second to copyright cases; in 2008, this proportion dropped to the third place, behind copyright and trademark cases. Especially in the past decade, with the explosive growth of copyright disputes, trademark disputes and other intellectual property cases, as well as the continuous emergence of various new types of intellectual property disputes, the proportion of patent cases of first instance accepted by Shanghai courts has decreased year by year, and only accounted for 2.78% of all the intellectual property cases in 2018. In 2019, the proportion generally remained on a historic low figure despite a small rise.

Figure 2: Proportions of First-instance Patent Cases in
First-instance Intellectual Property Cases Accepted by Shanghai Courts Since 1995

**(3) An absolute majority of patent cases relate to infringement disputes.** Civil patent cases include patent infringement disputes, patent ownership disputes, and patent contract disputes. All patent cases accepted by Shanghai courts were related to patent infringement disputes before 1991. Shanghai courts started to accept cases regarding patent ownership and patent contract disputes since 1992. However, disputes over infringement have always been dominant in all patent cases. From 1996 to 2019, the patent infringement cases of first instance accepted by Shanghai courts generally accounted for about 90% of all patent disputes in the same period. This reflects that Shanghai courts have always focused on protecting the legitimate rights and interests of the patentees from unlawful infringement in the course of patent litigations.

Figure 3: Proportions of First-instance Patent Infringement Cases in
First-instance Patent Cases Accepted by Shanghai Courts Since 2002

 **(4) Design patent infringement cases account for high proportion of all patent cases.** In the first instance cases of patent infringement, due to the relatively low thresholds for design patent grant and enforcement, the proportion of design patent infringement cases has always remained high, about 50% of all patent infringement cases for a long time. For instance, from 2015 to 2019, Shanghai courts accepted 1,497 cases concerning infringement of design patent, which accounted for 52.47% of the patent infringement cases of first instance during the same period every year. The proportion is 51.28% for the past decade. The features of such cases are as follows: 1. Design patents do not need to pass substantive examination before grant, and therefore many design patents are unstable and may be invalidated; 2. The cases regarding design patent shall be adjudicated in compliance with the comparison principle of “overall observation and comprehensive judgment,” which involves relatively subjective determination of infringement and liability and leads to the differences, especially before the relevant laws and regulations are made clear; 3. A considerable number of defendants selling the products are individual industrial and commercial households, such that serial enforcement becomes a very prominent phenomenon.

Figure 4: Proportions of Different First-instance Patent Infringement Cases
Accepted by Shanghai Courts over the Past Decade

**(5) Disputes over infringement of invention patents experienced obvious growth in recent years.** Invention patent has always been the technical carrier with the highest degree of technology and innovation in the patent field. From 2010 to 2014, the average annual growth rate of invention patent cases heard by Shanghai courts was only 0.6%. Shanghai officially launched the construction of Scientific and Technological Innovation Center in 2015. The number of first-instance cases regarding invention patent infringement disputes accepted by Shanghai courts increased substantially by 52.1% from the previous year, and the average annual growth rate remains 25.9% since then. It fully shows that with the intensified construction of Shanghai Scientific and Technological Innovation Center, disputes over inventions and technologies have increased significantly, and the patentees are increasingly aware of the importance to protect technological innovation day by day.

Figure 5: Invention Patent Infringement Cases of First Instance Accepted
by Shanghai Courts Since 2014

 **(6) Means of evidence collection keeps diversifying.** Whether the alleged infringing product falls into the scope of patent protection is the main basis of judging whether patent infringement is established in patent infringement lawsuits. Therefore, the key precondition for lodging a patent infringement lawsuit is that the patentee obtains physical evidence. Limited by the level of technology development, the traditional way of evidence collection is relatively simple, and is often carried out by purchasing products on the spot. But in the past decade, with rapid development in E-commerce in China, especially the mobile internet, the volume of online transactions has been increasing year by year. Attributable to geographic selectivity, convenient access to information, superficial concealment and low cost of evidence collection and other characteristics, online transactions have enabled the parties to purchase the exhibit through online trading platforms, and notarize and preserve such exhibit and the whole process of purchase. This method of preserving evidence of infringement has become the main method of evidence collection in patent infringement litigations, which is especially obvious in the cases regarding disputes over infringement upon design patent and utility model patent accepted by Shanghai courts in recent years. After Shanghai World Expo in 2010, Shanghai has become an important choice for various industries at home and abroad to hold exhibitions. Patentees often preserve evidence relating to the defendant’s act of selling or offering to sell infringing products, by means of notarization or litigation preservation during exhibitions, and lodge patent infringement lawsuits to Shanghai courts accordingly. The statistics show that in the pre-litigation evidence preservation cases accepted by Shanghai Intellectual Property Court since 2015, the seizure and detention of the products displayed by one party at the exhibitions held in Shanghai accounted for more than 70% of the total.

**(7) Damages claim keeps increasing and cases involving large-amount claim constantly emerge.** With the sustained rapid development of the national economy and the deepening of the reform and opening up in the past thirty-five years, the patentees and market players are understanding and expecting more of the technical value, which is evidently reflected in the amount of damages claim in patent cases, especially in patent infringement disputes. On one hand, the amount of damages claim continues to grow in general. Patent cases involving large amount of money accounted for a higher and higher proportion of intellectual property cases. On the other hand, the maximum damages claimed in patent cases kept increasing. For example, in 1996, in the case Shen Youfa v. Shanghai Railway Administration for infringing the invention patent of the automatic stopping device for train, the patentee claimed for economic compensations of RMB 50 million. Since the entry into the new century, patent litigation cases involving hundreds of millions of RMB emerged in large volume. In 2002, the case Shanghai Dbtel Industry Co., Ltd. v. Motorola (China) Electronics Co., Ltd. et. al. for patent infringement dispute involved damages claim in the amount of RMB 99 million. The case Zhejiang Longsheng Group Co., Ltd. v. Shanghai Dianqiao Industrial Development Co., Ltd. and Zhejiang Runtu Co., Ltd. regarding invention patent infringement dispute in 2012, the case Belgium Solvay Company v. Jiangsu Yangnong Chemical Group Co., Ltd. regarding invention patent infringement dispute in 2013, and the case Zhang Yaosheng v. Shanghai Donghao Lansheng International Service Trade (Group) Co., Ltd. regarding invention patent infringement dispute in 2015 all claimed for economic compensations in excess of RMB 100 million. The damages claimed in the case Huntsman Advanced Materials (Switzerland) Co., Ltd. v. Zhejiang Longsheng Group Co., Ltd. et. al. regarding invention patent infringement dispute in 2015, and the case Shanghai Sili Microelectronics Technology Co., Ltd. v. Shenzhen Huiding Technology Co., Ltd., and Shanghai Incarnation Digital Technology Co., Ltd. regarding invention patent infringement dispute in 2018 reached RMB 231 million and RMB 240 million respectively.

Figure 6: Maximum Damages Claim in First-instance Patent Cases
Accepted by Shanghai Courts

 **(8) Number of cases involving foreign parties or parties in Hong Kong, Macao and Taiwan Region steadily increases, with ever-expanding influence.** Since China’s accession to the World Trade Organization in 2001, the number of patent cases accepted by Shanghai courts that involve foreign countries, Hong Kong, Macao and Taiwan has been steadily increasing, and the increase seemed to be particularly sharp over the past five years. From 2015 to 2019, the number of patent cases involving foreign countries, Hong Kong, Macao and Taiwan increased by 43.91% compared with that from 2010 to 2014. Take the Shanghai Intellectual Property Court as example - since it began to fully perform in January 2015 to the end of 2019, patent cases involving foreign countries, Hong Kong, Macao and Taiwan accepted by the court accounted for 14.26% of all patent cases accepted during the same period every year. All these facts fully reflect the dominant position of foreign-related patent cases in all intellectual property disputes accepted by Shanghai courts. Further, the patent cases involving foreign countries, Hong Kong, Macao and Taiwan heard by Shanghai courts in the past decade show the following patterns: 1. More and more countries and regions are involved, mainly developed countries with relatively high level of scientific and technological innovation, such as the United States, the United Kingdom, Germany, France, the Netherlands, Switzerland, Belgium, Sweden, Finland, Austria, Luxembourg, Spain, Canada, Japan, South Korea, etc.; 2. The overseas enterprises involved have great influence, and many of them are well-known international enterprises in the industry, such as Apple Company of the US, Hewlett-Packard Dev Co Lp of the US, BRITA GmbH of Germany, BASF SE of Germany, Royal Philips Electronics of the Netherlands, Huntsman Corporation of Switzerland, Volvo AB of Sweden, Nokia Corp. of Finland, Mitsubishi Electric of Japan, and HONDA Motor, Ltd. of Japan, etc. 3. Most foreign-related cases are patent cases filed by overseas patentees against domestic manufacturers or sellers. However, with the continuous efforts to build Shanghai into an optimal choice for intellectual property lawsuits in the Asia-Pacific region in recent years, there have been some cases, in which both the patentee and the manufacturer of alleged infringing products are foreign enterprises, and only the seller is a Chinese enterprise, for example, the case US Immersion Corporation v. US Feibite Company et al regarding the dispute over infringement of invention patent for smart bracelets.

Figure 7: Patent Cases Involving Foreign Parties or Parties in Hong Kong, Macao and Taiwan Region Concluded by Shanghai Courts over the Past Decade

**(9) More technological fields are involved.** Before 2000, patent cases accepted by Shanghai courts were mainly in the field of machinery manufacturing. But the past 20 years of the new century has witnessed an obvious trend of expansion in the fields where patent disputes arise. Apart from machinery, patent cases are also related to many other fields such as communications, electronics, integrated circuits, building materials, household products, dyes, electrical appliances, food, drugs, textiles, and automobiles. Since 2015, Shanghai courts have also begun to accept patent cases involving a number of emerging or subdivided technological fields such as gene technology, 4G communications, bicycle-sharing, computer software, and mobile phone chips. For example, the case Canadian Dna Genotek Inc. v. Shanghai Human Genome Research Center relates to infringement upon human gene testing technology patents; the serial cases Germany Siemens v. MEIZU, Xiaomi and Jinli et al relate to standard essential patents for 4G technology; the case Hu Tao v. Mobike (Beijing) Information Technology Co., Ltd. relates to patented QR decoding and unlocking technology for bicycle-sharing; the case Beijing Sogou Science and Technology Development Co., Ltd. v. Beijing Baidu Netnews Technology Co., Ltd. is a novel patent infringement case involving Internet platform input method among well-known Internet enterprises; the case Shanghai Xuanpu Industry Co., Ltd. v. MediaTek Co., Ltd. et al requires determination on infringement of invention patent for mobile phone processing chip technology; the case Flach Toth Company v. Waugh Company et al relates to patent infringement of mobile phone antenna technology. The emergence and proper adjudication of these cases reflect that the present patent cases involve cutting-edge technological fields and increasingly-complicated technological facts. The importance of judicial patent protection in various technological fields is fully manifested.

**(10) Proportion of cases concluded by court judgment stably remains within a reasonable range**. Shanghai courts have stably maintained the proportion of first-instance patent cases concluded by court judgment within a relatively reasonable range. For example, in the first-instance patent dispute cases concluded by Shanghai courts from 2002 to 2019, the proportion of cases concluded by court judgment was 30.26%, which remained stable on the whole, while only 11.79% of first-instance IP cases concluded by Shanghai courts during the same period every year were concluded by court judgment. It fully shows that while Shanghai courts kept promoting mediation as patent disputes are more professional and involve complicated technical facts, according to law and realizing substantial resolution of intellectual property disputes, many parties prefer the courts to clarify relevant technical facts and professional issues through judgment including the scope of patent protection, whether infringement is established or not.

Figure 8: Ways of Concluding First-instance Patent Cases
by Shanghai Courts Since 2002

**(11) It takes longer period to adjudicate patent infringement cases**. Compared with other types of IP cases, patent cases concluded by court judgment take a relatively longer period of adjudication, among which disputes over invention patent infringement took the longest. For example, from 2009 to 2013, it took Shanghai No.2 Intermediate People’s Court 206.1 days in average to adjudicate and conclude patent cases with court judgment, 296.7 days in average on disputes over invention patent infringement, and 160 days in average on all first-instance IP cases during the same period. Take Shanghai Intellectual Property Court as another example, it spent 237 days in average in adjudicating patent cases from 2015 to the end of 2018, and disputes over invention patent infringement also take the longest. The main reasons are: 1. Patent cases often involve the connection of judicial and administrative procedures. A considerable number of defendants in patent infringement lawsuits will initiate the invalidation procedures against the patents at issue simultaneously, and thus some cases need to be suspended or wait for the result of relevant administrative lawsuits; 2. The technologies involved in the invention patents infringement litigations are often very complex, and are becoming more and more professional and complex in recent years, such that technical appraisal or expert consultation is required for many cases, resulting in relatively longer period of time required to ascertain technical facts. 3. It is common for the parties to raise objections to jurisdiction. Due to the complexity of patent cases, procedural matters are also involved, such as adding parties or postponing evidence production.

**II. Constantly Strengthening Judicial Protection of Patent**

**(1) Intensive adjudication of all kinds of patent cases contributed to the emergence of numerous excellent cases.** Based in Shanghai while embracing the big picture across the country, Shanghai courts carefully adjudicated each single case carefully in pursuit of perfection and excellence in the past thirty-five years. Many cases have been selected into the *Gazette of the Supreme People’s Court*, *Guiding Cases of the Supreme People’s Court*, *Ten Major Cases on Judicial Protection of Intellectual Property Rights in the Courts of China*, and *50 Typical Cases on Judicial Protection of Intellectual Property Rights in the Courts of China*, making positive contributions to the patent trials in China. The cases selected into the *Gazette of the Supreme People’s Court* include: Lu Zhengming v. Shanghai Engineering Equipment Co., Ltd. and Wuxi Environmental Sanitation Engineering Experimental Factory (case of appeal on patent infringement) in the 4th issue of 1993; Xi’an Aoke Automation & Instrumentation Co., Ltd. v Shanghai Huibo Automatic Gauge Co., Ltd. (case on declaration of non-infringement of patents) and Shanghai Huibo Automatic Gauge Co., Ltd. v. Xi’an Aoke Automation & Instrumentation Co., Ltd. (case regarding disputes over patent infringement) in the 12th issue of 2008; Weng Like v. Shanghai Pudong EV Fuel Injection Co., Ltd. and Shanghai Diesel Engine Co., Ltd. (dispute over remuneration to designer of service invention) in the 7th issue of 2009; Shanghai Quanneng Trading Co., Ltd. v. Shanghai Intellectual Property Administration (against an administrative decision on patent infringement disputes) in the 1st issue of 2011; Shanghai M&G Stationery Inc. v Deli Group et al (dispute of infringement upon design patent), which was also selected as one of the *50 Typical Cases on Judicial Protection of Intellectual Property Rights in the Courts of China in 2016*. *Guiding Cases of the Supreme People’s Court* include the invention patent infringement case between VALEO SYSTEMES D'ESSUYAGE against Xiamen Lukaisi Automobile Parts Co., Ltd. *et al.* in 2019. Cases selected in *Ten Major Cases on Judicial Protection of Intellectual Property Rights in the Courts of China* include: Wang Qun v. French Pavilion for 2010 Expo and China Construction Eighth Engineering Division Corp. Ltd. et al (case of appeal on dispute over infringement of invention patent) in 2010; SI Group Inc. etc. vs. Sino Legend (Zhangjiagang) Chemical Co., Ltd. et al. for disputes over infringement of trade secrets and patent in 2013. Cases selected in *50 Typical Cases on Judicial Protection of Intellectual Property Rights in the Courts of China* include: Sino Legend (China) Chemical Co. Ltd. v. SI Group-Shanghai Co., Ltd. for dispute over liability for malicious intellectual property litigation in 2017, etc.

Moreover, Shanghai courts have been carefully selecting and disclosing to the public ten intellectual property cases every year in the past decade, highlighting the value of case publicity and guidance. In addition to the above-mentioned cases, the cases selected by Shanghai courts also include: 3M Co. v. Zhejiang Daoming Investment Co., Ltd. for dispute over infringement of invention patent; BRITA Co., Ltd. v. Ningbo Qingqing Environmental Protection Electrical Appliances Co., Ltd. for dispute over infringement of invention patent; JUKI Company v. Chee Siang Sewing Machine (S.H.) Co., Ltd. for contract dispute over damages for patent infringement; case of Liang Junqi regarding dispute over reward to creator and designer of service invention; Hangzhou Naide Refrigeration Electric Appliance Factory v. Dongguan Chuangheng Industrial Co., Ltd. et al. for dispute over infringement of pre-filter patent; Seikilife (Shanghai) Housewares Co Ltd. v. Shanghai United Starbucks Coffee Co. Ltd. for dispute over infringement of Starbucks cups design patent; Duan Youlu and Zou Hexian v. Shanghai Xinguang Chemical Co., Ltd. for a dispute over the infringement of viscose agent invention patent.

**(2) Continuous increase in the amount of damages awarded reflects the value of patent.** In recent years, especially since Shanghai officially started the construction of Scientific and Technological Innovation Center in 2015, Shanghai courts have always implemented the judicial policy of strict protection, adhered to the principle of comprehensive compensation, fully considered the economic losses and reasonable enforcement costs of the patentee, to constantly reflect the value of patent while constantly increasing the cost of illegal acts. In 2018, Shanghai High People’s Court issued *Several Opinions on Strengthening Judicial Protection of Intellectual Property Rights*, which explicitly proposed to increase the level of punishment for infringement and let the infringer pay the due price, and in the case of patent infringement, for which punitive damages have not been stipulated by law, to increase the amount of compensation according to law by giving full consideration to the nature of infringement and subjective malice of the infringer. Upon publication of the *Opinions*, enforcement actions from patentees become more effective. Taking the invention patent infringement cases in Shanghai Intellectual Property Court as an example, the average amount of compensation awarded reached RMB 740,000 in 2018 in cases where infringement was found, showing an increase of more than 50% over that in 2017.

Typical cases involved: In 2015, in the case Hangzhou Naide Refrigeration Electric Appliance Factory v. Dongguan Chuangheng Industrial Co., Ltd. et al. for dispute over infringement of utility model patent, the court found that the defendant committed infringement. While the plaintiff failed to prove the actual losses suffered due to the infringement or the benefits obtained by the defendant from the infringement, and also could not provide the license fee for reference, considering there was evidence to prove the sales prices of alleged infringing products were higher than that of similar products, the sales channels involved many well-known network platforms, and that the alleged infringing products were sold in huge volume and received extensive advertising, the court determined that the defendant shall compensate the plaintiff for the economic losses and reasonable expenses totaling RMB 1 million, based on the upper limit of statutory damages for the infringement of utility model patent. In the case Duan Youlu and Zou Hexian v. Shanghai Xinguang Chemical Co., Ltd. for a dispute over invention patent infringement in 2017, Shanghai High People’s Court actively guided the parties to submit evidence about the amount of damages, and by carefully reviewing the documented evidence and properly determining the profit rate of the infringed products, it accurately calculated the profits gained by Shanghai Xinguang Chemical Co., Ltd. through the sale of the infringing products to third parties. Accordingly, the court changed the amount of compensation from RMB 500,000 as awarded in the first instance to over RMB 1,400,000. In the patent infringement dispute case filed by Shanghai Xinbaiqin Special Vehicles Co., Ltd., the defendant intentionally submitted an application to SIPO to abandon the patent knowing the patent was determined to belong to the plaintiff by another judgment, causing the plaintiff to lose the patent right it should have obtained. The Shanghai Intellectual Property Court held that the defendant maliciously abandoned its patent right and shall compensate the plaintiff for the corresponding losses, and so ruled. In the case Brother Industries, Ltd. v. Ningbo Supreme Electronic Technology Co., Ltd. for infringement of invention patent, the court determined RMB 5.5 million as the profit obtained by the defendant and reasonable expenses by exercising discretion based on the facts of the first instance case, and awarded the amount of compensation accordingly. In 2018, in the case Longrun Electromechanical Company v. Gu’ao Electronics Company et al for disputes over infringement of invention patent, the court found from the judicial appraisal that the gross profit rate of alleged infringing product was greater than the ratio to revenue, which proved that the alleged infringing product contributed to the higher gross profit rate. On the basis of such high operating profit, the court awarded more than RMB 3 million as economic damages. In the case Fengjing Magnetic Separation Company v. Ciying Mining Machinery Company for infringement on invention patent, the court applied different calculation methods to determine the applicable amount of damages for each different infringing act, determined that the illegal profits obtained by the infringer from infringement included the actual profits and expectation interests, and thus awarded economic compensations of more than RMB 1.2 million in total in the first instance proceeding. In 2019, in the case Huntsman Advanced Materials Licensing (Switzerland) GMBH v. Zhejiang Longsheng Group Co., Ltd. *et al*. for infringement of invention patent, the Shanghai High People’s Court carried out judicial accounting appraisal upon the request of the patentee, ascertained the sales of the infringing products, and exercised discretion based on the facts of the case to award RMB 14 million as economic compensations in the first instance proceeding. In the case Babyzen v. Hebei Luyuan Cycles Co., Ltd. for infringement of invention patent, and in the case Foreo (Shanghai) Trading Co., Ltd. v. Zhuhai Kingdom Electric Appliance Co., Ltd. *et al*. for infringement of design patent, after ascertaining the sales of the infringing products, the Shanghai Intellectual Property Court legitimately supported the calculation for damages chosen by the plaintiffs which can help protect their rights, and fully supported the plaintiffs’ claims for RMB 3 million in each of the two cases according to the selling price of the plaintiffs’ patented product, the reasonable profit margins of similar products, and the contribution rate of the patent.

**(3) Render interlocutory judgment as an explorative measure to improve the trial efficiency of complex patent cases**. In view of the long adjudication period for patent cases, especially infringement cases involving invention patents, Shanghai High People’s Court issued *Several Opinions on Strengthening Judicial Protection of Intellectual Property Rights* in 2018 to propose that where the case involves complicated facts, but part of the facts and claims have already been well adjudicated, the court may first issue judgment on that part of the case when necessary. In January 2019, Shanghai Intellectual Property Court made an interlocutory judgment in the case Valeo Systemes D’essuyage v. Xiamen Lukasi Automotive Parts Co., Ltd., Xiamen Fuke Automobile Fittings Co., Ltd. and Chen Shaoqiang for infringement for invention patent. During the adjudication of this case, the plaintiff applied to the court to first determine that the alleged infringing products fell within the scope of protection of relevant claims of the patent at issue, and order the three defendants to immediately stop the infringement. Upon adjudication, the court held that whether the alleged infringing products fell within the scope of protection of relevant claims of the patent at issue is subject to great dispute among the parties. Such dispute was the core issue of this case and directly related to whether the three defendants should be liable for infringement and how to determine the amount of compensation. The plaintiff’s application for an interlocutory judgment was not inconsistent with the law, and even beneficial for determining whether it is necessary to further review and ascertain the large amount of compensation evidence in this case, and saving judicial resources, so the court ruled to support the application. This case is the first time that Shanghai Court ordered the defendant to stop the infringement by way of an interlocutory judgment in an IP infringement case. It is also a useful attempt to effectively shorten the adjudication period of patent cases, fully facilitate the right enforcement of patentees, explore and perfect the intellectual property litigation system. This ruling was subsequently upheld in the second instance proceeding before the Intellectual Property Tribunal of the Supreme People’s Court.

**(4) Use preliminary injunctions according to law to protect the legitimate rights and interests of the parties**. In August 2000, the revised Patent Law and relevant subsequent judicial interpretations further strengthened the judicial protection for intellectual property, and successively added protective measures of preliminary injunctions, i.e. where the patentee or interested party has evidence to prove that others are committing or will commit infringing acts against their intellectual property, and that if not stopped in time, it will cause irreparable damage to its legitimate rights and interests, such patentee or interested party may apply with the court before lodging the lawsuit, to order the infringer to stop relevant acts or take other actions. Shanghai courts conscientiously implemented and applied such preliminary injunctions in accordance with the law and summarized practical experience in a timely manner. In 2006, Shanghai High People’s Court held a “Seminar on Application of Pre-litigation Injunction” to investigate and summarize the application issues of preliminary injunction. On this basis, it released its opinions on *Some Issues in Application of Pre-litigation injunction* in June 2007, which specified in detail the application of pre-litigation injunction from the following aspects: applicable scope of preliminary injunction, evidential materials to be submitted for application of preliminary injunction, the conditions for application of preliminary injunction and the lifting of preliminary injunction, which played a positive role in unifying the standards of granting preliminary injunction in Shanghai while facilitating the litigation of the parties.

In 2001, Shanghai No.2 Intermediate People’s Court accepted the case filed by Jiangsu Tianyou Health Appliance Company Limited that applied for pre-litigation injunction to order Shanghai New World Co., Ltd. et al to stop patent infringement, which was the first case of pre-litigation injunction for stopping intellectual property infringement in Shanghai. In this case, the petitioner requested the respondent to stop infringing the design patent by selling products. After legal adjudication, the court made a timely pre-litigation injunction to order cessation of patent infringement and took corresponding measures. In May 2002, a US company, Eli Lilly & Company applied to the court for a pre-litigation injunction to prohibit Jiangsu Lianyungang Haosen Pharmaceutical Co., Ltd. and Shanghai Institute of Pharmaceutical Industry from producing, selling or preparing to produce products obtained through the petitioner’s patented method, citing the fact that these two respondents have completed preparations for infringing its two method patents and were preparing to fully implement the patent infringing acts. The court, upon review, made a pre-litigation injunction ruling. This case is the first case accepted by Shanghai court, in which a foreign company applied for a preliminary injunction. In 2007, the aforementioned Haosen Pharmaceutical Co., Ltd. filed a lawsuit against the US Eli Lilly & Company, claiming for compensation for its losses incurred from the preliminary injunction improperly applied by Eli Lilly & Company, which was the first case in Shanghai that arises from damages caused by the improper application of the preliminary injunction, and the court made a judgment according to law. The above-mentioned first cases of preliminary injunctions in Shanghai courts all involve patent disputes, which show the important influence of the application of preliminary injunctions on the judicial protection of patent rights.

It is worth mentioning that after the *Provisions of the Supreme People's Court on Several Issues concerning the Application of Law in Cases Involving the Review of Act Preservation in Intellectual Property Disputes* came into force in January 2019, in the case Shanghai Hongyan Returnable Transit Packagings Co., Ltd. v. Yiwu Ruilai Plastics Co., Ltd. for infringement of invention patent, the Shanghai Intellectual Property Court accurately applied the definition of “urgent situation” thereunder, issued a ruling of behavior preservation for the first time upon the application of the litigant, and served it to the exhibition, thereby protecting the legitimate rights and interests of the patentee in a timely manner.

**(5) Use evidence rules and mechanisms according to law to solve the “difficulty in evidence production” in the course of patent litigation**. In recent years, Shanghai courts have taken various measures to deal with the patentees and relevant parties who truly have difficulties in producing evidence in the process of patent litigations, and have strictly applied all kinds of legal rules, principles and mechanisms in accordance with the law to facilitate effective judicial protection.

1. Make full use of investigation order, ex officio investigations and other measures during investigation and evidence collection. In view of the fact that it is difficult to submit evidence of illegal gains obtained from patent infringement or acquire some evidence in possession of third party holders, Shanghai courts have made full use of investigation orders, ex officio investigation and evidence collection and other procedural mechanisms, to enhance the official evidence investigation and reduce the burden of proof on the patentee to a reasonable extent. In the serial design patent infringement cases brought by Royal Philips Electronics, upon request of the patentee, the court issued an investigation order for the plaintiff to obtain the defendant’s sales record from Taobao.com and produce evidence. The court then ascertained the sales volume of the alleged infringing products, profit margin and other relevant facts, and confirmed the fact that defendant’s gains from infringement were more than the plaintiff’s claim, and supported the patentee’s damages claim in full amount. In the invention patent infringement case brought by Brother Industries, Ltd., the court retrieved relevant sales invoices of the defendant ex officio from the State Tax Administration of Yinzhou District, Ningbo City, Zhejiang Province, and ordered the defendant to pay economic compensations of RMB 1 million on the basis of these invoices.

2. Accurately apply the high probability standard for civil evidence and ascertain legal facts according to law. In the case Sandvik Intellectual Property AB v. Zhejiang MP Mining Equipment Co., Ltd. for the dispute over infringement of invention patent, despite the impossibility to observe the physical alleged infringing products, the court confirmed all the technical schemes of the alleged infringing product based on the photos and videos provided by the patentee and combined with the professional knowledge of the technical personnel, and finally supported the plaintiff’s claim.

3. Apply the rule of shifting burden of proof in accordance with the law, to make the party refusing to submit evidence bear the adverse consequences. For example, in the invention patent infringement case brought by Nanjing Ecoway Energy Technology Co., Ltd., the defendant did not provide accounting records for ascertaining scope of infringement and gains from infringement after the court’s explanation, so the court supported the plaintiff’s damages claim in full amount according to the plaintiff’s claims and submitted evidence.

4. Promote the construction of good faith litigation in intellectual property cases. The Shanghai courts explored a system of good faith litigation notice in the course of lawsuits, to reinforce the litigant’s duty of integrity and cooperation by guiding the litigants to tell the truth during the legal proceedings and punishing dishonest litigation behaviors. In design patent infringement case brought by Shenzhen Ganten Food & Beverage Co., Ltd., the defendant clearly expressed during the trial that the domain name involved didn’t belong to the defendant, but the plaintiff proved through notarized preservation that the domain name belonged to the defendant, and paid for the notarization. Therefore, the court held that the defendant violated the principle of good faith in litigation after the court had clearly notified the parties to tell the truth about the case facts, thus ruling that the defendant must bear the plaintiff’s additional expenses for notarized preservation.

**(6) Actively and properly carry out mediation to promote substantive resolution of patent disputes**. Shanghai courts have always attached great importance to the substantive resolution of litigation disputes, and paid special attention to the role of mediation and reconciliation in dispute resolution during the course of patent cases, so as to maximize the industrialization of scientific and technological innovations and maximize the value of intellectual property. At the beginning of this century, Shanghai courts have already specified the mediation principles of relevant patent cases and proactively assist with mediation between the parties. For example, in patent infringement cases involving the transfer of goods seized by the customs, the court may allow the parties to make reconciliation arrangements for infringing products and mold equipment, including handing over infringing products and mold equipment to the plaintiff for disposal, and would not make an infringement determination in the mediation document, provided that the products involved are not fake and inferior commodities, commodities controlled by the state or prohibited from circulation, and do not harm the public interest. In 2009, Shanghai courts explored new ways of conditional reconciliation. In the case Shanghai Tongning Nursing Supplies Co., Ltd. v. Wenzhou Jiansheng Commodity Co., Ltd. et al regarding a dispute over utility model patent infringement, under the organization of the court, the parties reached an agreement that the defendant should stop infringement and compensate the plaintiff’s losses, but if the patent owned by the plaintiff was declared invalid within the validity period, the plaintiff should return the economic compensations paid by the defendant to the plaintiff. In this case, the court made a beneficial attempt to deal with patent disputes in a timely manner by means of conditional settlement, which increased the efficiency of case adjudication while fully protecting the rights and interests of the parties. In recent years, Shanghai courts have made full use of the relevance of the parties, infringing products, patent rights and other aspects in related cases, to implement a package of mediation programs to resolve disputes and promote a once-and-for-all complete resolution of disputes. In particular, the Shanghai courts made full use of the previous judgments of related cases, and fully utilized the exemplary role of the adjudicated cases to the subsequent cases, to faciliate the mediation work in the subsequent cases, and ensure that the parties can truly solve the dispute once the case is concluded. For example, the serial invention patent infringement cases between Hewlett-Packard Dev Co. and Yinjia Trading Company was the first case accepted by Shanghai Intellectual Property Court after its establishment, which attracted great social attention, and involved complicated technical issues. Under the proactive organization of the court, the plaintiff and defendant finally reached a package agreement to settle related series cases.

**III. Constantly Strengthening the Exploration of Patent Trial Rules**

At the forefront of China’s reform and opening-up and economic development, Shanghai embraces constant emergence of new situations and new issues, constant changes to the types of intellectual property cases (represented by patent disputes), and the emergence of many new types of complex cases. At the same time, China’s patent legal system is under continuous construction and perfection, and many cases are often adjudicated without clear legal provisions to follow, which requires the judges to explore and formulate relevant rules of adjudication by interpreting the legislative rationale while adhering to legal principles. Looking back to the history of patent adjudication of 35 years in Shanghai, Shanghai courts have explored and developed a number of fully recognized rules of adjudication through persistent efforts in law-based and professional adjudication, making positive contributions to the development of patent adjudication in China.

 **(1) Accurately constructing patent claims and reasonably ascertaining patent protection scope**. In line with the legislative intent of the patent law to protect rights and promote innovation, and the legislative spirit of “disclosure in exchange for market” of the patent system, Shanghai courts emphasized the effects of the patent claims to make publicity and draw boundaries, so as to protect the public’s reasonable trust in patent application documents and reasonable expectations of their own behavior.

1. Following the All Elements Rule. In the case Xi’an Aoke Automation & Instrumentation Co., Ltd. v. Shanghai Huibo Automatic Gauge Co., Ltd. over the confirmation of non-infringement of patent rights, which was selected into the *Gazette of the Supreme People’s Court*, the first instance judgement clearly states that if the alleged infringing product or method includes all the identical technical features defined in the claim or includes one or more technical features which are equivalent to, though different from those defined in the claim, the alleged infringing product or method constitutes patent infringement, otherwise there is no patent infringement. This is the first case adjudicated by Shanghai courts over declaration of non-infringement of patent rights, and also a typical case in which Shanghai courts adhere to the All Elements Rule for patent infringement determination in practice. In addition, in the case Zhejiang Haomiao Technology Co., Ltd. v. Shanghai Zhengjie Fire-fighting Safety Equipment Co., Ltd., et al. for the dispute over the infringement of invention patent, it is further specified that the All Elements Rule is the basic method of determining patent infringement, and at the same time, the court held that technical deterioration does not constitute infringement, that is, whether the technical solution of the alleged infringing product is inferior to the patented technical solution does not fall within the determination scope of patent infringement.

2. Defining claims by the purpose of invention. Attach great importance to the role of invention purpose in defining the scope of patent protection. If the purpose of invention described in the specification is not overturned by other evidence, the claims shall be interpreted according to the purpose of invention described in the specification, and deficient or insufficient technical solutions in the prior art to be overcome by the patented technology shall not be included in the scope of protection. In the CASE Wang Qun v. French Pavilion for the 2010 Expo, et al. regarding the dispute over the invention patent infringement, according to the descriptions in the specification of the plaintiff’s invention patent, the invention was designed to solve the problem in the existing technology that only a limited number of buildings could be built on one unit of construction land, and although a high-rise building allows for a larger floor area on one unit of construction land, it is relatively closed and hinders occupants from interacting with each other and with nature. The aim of the invention is to expand the building area per unit of construction land while improving the interactions and comfort among the occupants by “locating houses around a spatial structure.” According to the above description of the patent specification, the invention is implemented mainly by locating houses around a spatial structure or expanding the floor area from the center of a spatial structure to its periphery. Despite being possible to improve communication and comfort, the layout of French Pavilion precludes the possibility of building many houses per unit of its construction land because it lacks the space for building houses around the spatial structure except for a reasonable upward extension. The layout of the French Pavilion is, therefore, neither identical nor equivalent to the patented technology and does not constitute patent infringement. In the case Song Jianwen v. Mentor Graphics (Shanghai) Electronic Technology Co., Ltd., et al. regarding the dispute over the infringement of invention patent, and in the case Jarlly Technology (Shanghai) Ltd. v. Shin Zu Shing Co., Ltd. regarding dispute over the infringement of the utility model patent, the courts interpreted the claims based on the invention purpose specified in the patent specification and did not include the deficient or insufficient technical solutions in the prior art to be overcome by the patented technology in the scope of protection.

3. Determining the content of functional technical features by the examples provided in the specification. The scope of patent protection should be clear and definite, which requires that the direct features of an invention to be characterized by the structure of the product or the steps of the method wherever possible during the drafting of the claims, whereas functional technical features may be adopted in the claims only if the features of structure or process cannot be described with the features of structure or process or it is clearer to describe with functional features. Shanghai courts have explored the rules of interpreting functional features in patent infringement cases involving claims with functional features: defining the content of functional features based on the examples descried in the specification and drawings and their equivalents so as to urge the patent applicants to avoid adopting functional features in the claims as much as possible. In the case Liang Jinshui v. Li Changzhong et al. regarding dispute over infringement of the utility model patent, the court held that the functional features described in the claims should be interpreted as only covering the examples described in the specification to achieve such function and their equivalent examples. If relevant technical features of the alleged infringing product are neither identical with nor equivalent to the examples described in the functional features in the claims of the patent at issue, the alleged infringing product does not fall into the scope of patent protection. In the case Qu Shengbo v. New World (China) Technology Media Co., Ltd. et al. regarding the dispute over the infringement of the utility model patent entitled “electronic multi-line bus station sign”, the court further held that the scope of protection for functional features cannot be determined if no examples are provided. In the said case, the patent specification failed to describe the examples of “electronic pull-in forecasting screen” to achieve the function “bus pull-in forecasting”, and therefore, it is impossible to determine the technical feature “electronic pull-in forecasting screen” in the claims of the patent at issue and further, the scope of protection of the claims of the patent at issue. On this basis, the alleged infringement cannot be established regardless of the alleged infringing technical solution.

4. Correcting obvious clerical errors by judgments. In view of the fact that clerical errors or other writing errors do exist in the drafting of claims, and the patent prosecution proceedings impose restrictions on applicant’s right to amend patent documents. in order to protect innovation and prevent malicious infringement through clerical errors, and for the purpose of substantive justice, in cases where the court finds obvious errors in the specific terms of the claims, but persons skilled in the art can modify the meaning of the specific term of the claims explicitly, directly and unambiguously according to the corresponding descriptions in the specification and the drawings, the court may interpret the claims based on the modified meaning. For example, in the case Beijing SICO-SST Hospitality Equipment Manufacturing Co., Ltd. v. Guangzhou Halmay Hotel Furniture Manufacture Co., Ltd. regarding dispute over invention patent infringement, in combination with the PCT documents and the drawings in the patent specification, the court held that the description of a technical feature contained an obvious error and that based on the corresponding patent specification and drawings, persons skilled in the art can explicitly, directly and undoubtedly realize that the expression of the technical feature in the PCT documents shall prevail over other meanings, so the error should be corrected in the interpretation of the claims. Accordingly, the court corrected the clerical error in the claims and, on the basis of the modified meaning, determined that the technical feature of the alleged infringing product falls within the scope of patent protection.

**(2) Accurately analyzing the applicable conditions of equivalent infringement and strictly applying the doctrine of equivalents.** As the determination of equivalent infringement often lies in the blurred boundary between patent rights and public domain, one should aim to achieve balance between stimulating innovation and encouraging free competition. The legal boundaries defined and applied should be beneficial for creating a flexible innovation environment and improving the independent capability of innovation and core competitiveness of the country. Therefore, in general, Shanghai courts have adopted relatively strict criteria when determining equivalent infringement.

1. Strictly following the principle that the determination of equivalent technical features must satisfy the “three basics” and “obviousness” standards. When making the determination of equivalent infringement, the court must consider whether the implementation methods, functions and effects of an alleged infringing product are basically the same as those described in the patent claims and whether such similarity can be easily seen by a person with ordinary skill in the art, and strictly analyze applicable conditions of equivalent infringement to prevent abusive finding of equivalent infringement. In the case Shanghai Jindi Metal Products Factory v. Shanghai Genyuan Metal Products Co., Ltd. regarding the dispute over the infringement of the invention patent, the court determined that while the alleged infringing technical solution and the technical feature of the involved patent adopted basically identical means, realized basically identical functions, and achieved basically identically effects, such similarity is obviously beyond what ordinary persons skilled in the art can think of without creative labor, so the alleged infringing technical solution should not be included in the scope of equivalent technology to the relevant technical features in the claims. In other cases, for example, in the case Murata Machinery, Ltd. v. Jiangyin Huafang New Technology & Science Research Co., Ltd. regarding the dispute over the infringement of the invention patent, as well as the case Mitsui Kinzoku ACT (Shanghai) Management Co., Ltd. v. Yantai Tricyclic Lock Industry Group Limited regarding dispute over the infringement of the invention patent, Shanghai courts also did not find the equivalent technology in strict compliance with the laws.

2. Limiting the determination of equivalent infringement by the doctrine of estoppel. Patentees are prohibited from re-claiming a technical feature in an infringement lawsuit that have been subject to substantive restrictions imposed by the patentee in the patent prosecution proceedings. In the case Juki Corporation v. Shanghai Lijia Sewing Machine Co., Ltd. regarding the dispute over the infringement of the invention patent “needle swing pattern changer for sewing machine”, the court held that the patentee explicitly surrendered relevant technical feature of the claims in the patent prosecution proceedings; therefore, even if the alleged infringing product contains a technical feature equivalent to the said technical feature, equivalent infringement cannot be found on the ground of the above-mentioned equivalence.

**(3) Accurately handling prior art defense and reasonably balancing the interests of all parties.** The prior art defense system is designed with the aim to protect a person practicing the prior art from being accused of patent infringement by patentees who are granted patent rights inappropriately. Shanghai courts have always attached importance to defendants’ right to prior art defense. On the one hand, in order to save the accused infringers from reluctantly initiating patent invalidation actions and the subsequent complex procedures and lengthy proceedings, Shanghai courts tried best to support effective application of prior art defense. On the other hand, under China’s patent judicial system, limiting the determination of prior art defense to evaluating novelty and the minimal degree of creativity can help unify the standards of patent validity determination.

1. It is specified that prior art defense should adopt comparison of overall technical solutions. In the case Shanghai Zhaobang Electric Facility Co., Ltd. v. Shanghai Zhengnai Electronic Power Technology Co., Ltd. regarding the dispute over infringement of the invention patent “lightning protection post insulator,” the court held that prior art defense is to compare an individual prior art solution against the technical solution of an alleged infringing product, rather than to compare one of the technical features of a prior art solution against one of the technical features of the technical solution of the alleged infringing product, and thus overruled the defendant’s defense opinions concerning comparison.

2. Technical comparison in prior art defense is limited to prior art or a simple combination of prior art and common knowledge. In the case Sanofi (Hangzhou) Pharmaceutical Co., Ltd. v. Shenzhen Neptunus Pharmaceutical Co., Ltd., et al regarding the dispute over infringement of the invention patent “a pharmaceutically stable oxaliplatin preparation,” the plaintiff asserted claim 4 as its right basis. Claim 4 contains the technical feature “is ready for use and can be installed in an airtight container” based on the reference to claim 2. Although the alleged infringing product falls within the scope of protection of claim 4, the defendant raised a prior art defense, arguing that its technical solution is a simple combination of prior art and common knowledge. After adjudication, the court held that, since claim 2 has been invalidated by an effective judgment, the technical solution of claim 2 is considered prior art, which can be freely practiced by anyone or by simply combining it with common knowledge. The defendant uses the prior art solution of claim 2 to manufacture a type of injection solution and places the solution into colorless glass ampoules. The use of colorless glass ampoules as a container of an injection solution is disclosed as common knowledge of injection solution use and placement in the pharmacy textbook. Therefore, even if the technical solution of the alleged infringing product falls within the scope of protection of claim 4, it should not be determined to have infringed claim 4, otherwise it cannot realize the purpose of patent protection nor will it help to protect the public interest.

**(4) Accurately formulating the standards in determining design patent infringement and strengthening the protection of design patents by law**

1. Determining the scope of protection of design patent claims based on the pictures or photos attached. In adjudicating disputes over infringement of design patent, if the brief description of a design patent conflicts with its pictures or photos, the pictures or photos shall prevail; if the brief description matches the pictures or photos, the brief description can be used as a basis to determining whether the alleged infringing design and the patented design are substantially similar. In the case Foshan Shunde Xinshengyuan Electrical Appliances Co., Ltd. v. Shanghai Master Plastic Products Co., Ltd. regarding dispute over design patent infringement, although the brief description of the design patent states that the blower shell is made of transparent material, the internal structure inside the transparent shell cannot be seen from the pictures of the design patent. The court held that the scope of protection of the design patent covers the shapes, patterns and colors shown in the pictures rather than the internal structure of one or several types of blowers generally known in the art. When making sameness or similarity comparison, one should not consider the visual effects produced by one or several types of commonly known internal structures, but should only compare the external characteristics of the blower.

2. Formulating the standards of determining design similarities. In the case Shanghai M&G Stationery Inc. v Deli Group Co., Ltd. et la regarding the dispute over design patent infringement, the products involved are pens commonly seen in daily life, and the determination of infringement of their design patent is greatly influenced by subjective factors. The court explored the objective criteria for determining the design similarities, considered both similarities and differences between the infringing product and the granted patent, analyzed the effects of the same and different design features on the overall visual effect of the products, and clarified that a design patent is infringed if such patent is practiced by changing or adding certain design elements, patterns and colors with no substantial differences of or to the patented design, without creative labor.

3. Using the examination decision issued on an invalidation request as an important basis for infringement determination. In the judgment of whether an alleged infringing design and a patented design share substantial similarities, the courts usually take the examination decision issued by the Patent Reexamination Board on the invalidation request against the patent as an important basis for reference, and consider distinguishing design, key points of design, design space, similarity comparison and other contents therein.

**(5) Accurately calculating service invention remuneration and effectively protecting the rights and interests of inventors.** Through the adjudication of disputes over rewards to the inventors and designers of service inventions, Shanghai courts have specified important basis for the calculation of remuneration to inventors for service inventions. The case Weng Like v. Shanghai Pudong EV Fuel Injection Co., Ltd., et al regarding the dispute over the right of designer to service invention remuneration was adjudicated by a Shanghai court and recorded in the *Gazette of the Supreme People’s Court*. In this case, it was held that the invalidation of a service invention patent does not release the patentee from its obligation to pay remunerations to the service invention designer , and the designer can claim for remunerations due and payable within the period of validity of the patent. At the same time, the contribution rate of a patent as a component in a product can be used as a basis for determining the corresponding income produced by the practiced patent. In the case filed by Liang Junqi regarding the dispute over the right of the inventor and designer to service invention reward to, the court held that where the company has specified the amount of reward for a service invention through its rules and regulations, if the corporate rules or regulations provide a specific amount, the court shall determine a specific amount of reward; if only a range is provided, the court may calculate the amount of reward based on such range by considering the implementation and creativity of the patent and other factors, instead of directly applying the minimum reward standard stipulated under the *Patent Law*.

**IV. Constantly Deepening the Reform regarding Patent Trial System**

**(1) Enhancing the construction of judicial institutions and providing organizational guarantee for patent case trial.** In February 1994, under the approval of the Standing Committee of Shanghai Municipal People’s Congress, both Shanghai High People’s Court and Shanghai Intermediate People’s Court established an intellectual property tribunal for centralized adjudication of intellectual property civil cases. This marks the beginning of the development of the specialized adjudication of intellectual property cases in Shanghai courts. In July 1995, the former Shanghai Intermediate People’s Court was abolished and replaced by Shanghai No. 1 and No. 2 Intermediate People’s Courts, both of which have an intellectual property tribunal. Since then, relevant intermediate people’s courts were responsible for hearing all kinds of patent civil cases of first instance, and Shanghai High People’s Court for hearing patent civil cases of second instance and patent civil cases of first instance with significant influence under its jurisdiction. In December 2014, the Shanghai Intellectual Property Court was formally established as a response to the strategic plans of “Exploring the Establishment of Intellectual Property Courts” of the Third Plenary Session of the 18th Central Committee of the CPC and the *Decision of the Standing Committee of the National People’s Congress on Establishing Intellectual Property Courts in Beijing, Shanghai, and Guangzhou* and to the need of building a globally influential science and technology innovation center in Shanghai. The Shanghai Intellectual Property Court mainly adjudicates patent and other technology-related civil cases of first instance where the value of the subject matter is less than RMB 100 million and one party is not domiciled in Shanghai, or a foreign, Hong Kong, Macao or Taiwan party is involved, or where the value of the subject matter is less than RMB 200 million and all parties are domiciled in Shanghai. The establishment of the Shanghai Intellectual Property Court signifies a new breakthrough in the patent adjudication system in Shanghai. By the end of 2019, the Shanghai Intellectual Property Court had accepted 3,166 patent disputes of first instance, and concluded 2,574 cases over the five years since its establishment, with the value of the subject matter of concluded cases exceeding one hundred million RMB. It has played an important role in professional and standardized judicial protection of patents.

**(2) Building a diversified technical-fact-finding system to provide professional support for technical fact finding in patent cases.** Patent cases involve professional and technical issues. As judges may lack professional background knowledge in a certain field, they often need to rely on external professionals for ascertaining technical facts. In September 1996, Shanghai High People’s Court appointed eight highly recognized technical experts in scientific and technological fields as people’s jurors, opening a new path for the building of the technical fact-finding system for Shanghai courts. In January 1999, September 2002, and August 2005, Shanghai courts recruited intellectual property consultants for three times successively, who helped them find technical facts by providing technical consultancy services or participating in jury. In 2000, the deceased intellectual property expert Zheng Chengsi, then deputy of the National People’s Congress, believed that the appointment by Shanghai courts of a number of nationally influential intellectual property consultants helped to realize the fairness and efficiency of intellectual property adjudication. He submitted a proposal to the National People’s Congress, recommending the Supreme People’s Court to promote Shanghai courts’ practice of hiring consultants. In December 2009, the Shanghai High People’s Court established the “Technical Consultant Expert Library for Intellectual Property Trials in Shanghai courts” and recruited 62 well-known experts in the fields of electronics, communications, machinery, and chemical engineering to serve as technical consultants in order to help judges with technical fact finding in the adjudication of intellectual property cases represented by patent infringement disputes. In 2010, the Shanghai High People’s Court issued the *Explanation on the Use of the Technical Consultant Expert Library for Intellectual Property Trials in Shanghai Courts*, which stipulated the procedure for Shanghai courts to select and commission technical consultants, the rights and obligations of technical consultants and other issues in the situation where it is necessary to consult technical experts.

Since 2015, the Shanghai Intellectual Property Court has explored and established a technical investigator system, established a technical investigation office, and successively formulated the *Rules of Technical Investigator’s Participation in Litigation Activities*, the *Consultation Management Methods for Invited Scientific and Technical Consultants*, and the *Administrative Measures for the Participation of People’s Jury in Trial Activities*, the *Guidelines on the Judicial Appraisal of Technical Facts in Intellectual Property Civil Cases*, the *Rules for Appropriate Disclosure of Technical Review Opinions (for Trail Implementation)* and other rules of technical fact finding, thereby forming a “four-in-one” technical fact investigation and finding system, which consists of technical investigation, technical consulting, expert jury and technical appraisal, and further improving the neutrality, objectivity and rationality of technical fact finding. Gradually, the participation of technical investigators in litigation activities has become a norm. The Shanghai Intellectual Property Court appointed 13 technical investigators, including 2 resident exchange-oriented technical investigators, 11 part-time technical investigators, and 9 experts with senior professional titles. All of them are professionals from national agencies, industry associations, colleges and universities, and research institutions in the fields of materials engineering, chemical engineering, electronics, communications, networking, optoelectronics, and medicine. For example, in 2017 and 2018, the Shanghai Intellectual Property Court called for patent consultancy services 193 times and appointed technical investigators to appear in court for 13 cases. In an invention patent infringement lawsuit filed by Shanghai-based Sinofaith IP Group, technical investigators and expert jurors were invited to participate in the trial of the case, where the technical investigators focused on the review and clarification of technical facts under dispute in the pre-trial preparation stage and the expert jurors were mainly responsible for the investigation of technical facts under dispute during the trial. With the combined efforts, technical facts under dispute were accurately ascertained, and the two parties reached settlement out of court and withdrew the case. At the same time, the case also facilitated the successful conclusion of the other three related cases. The application of the “four-in-one” system achieved good results. In 2018, Shanghai courts further promoted the combination of the intellectual property technical expert library of the Shanghai High People’s Court and the technical consultant expert library of the Shanghai Intellectual Property Court, and established a technical fact-finding sharing mechanism for technical cases across the city, to help Shanghai courts adjudicate technology-related intellectual property cases. An issue of the *People’s Daily* featured a special report entitled the *Appointment of Technical Investigators by Courts*, which received good public reactions.

**(3) Standardizing special litigation procedures and guiding patentees to fully express their claims.** Patent cases often involve determination of the scope of protection of patent rights and the comparison of technical or design features, so their litigation procedures are different than other civil cases. Shanghai courts started the exploration and practice of standardized operation of applicable litigation procedures early on and have achieved positive results in the trial of patent cases.

1. Standardizing the mode of preparatory hearings and determining the scope of protection of patent claims by convening preparatory hearings (pre-court meeting). The determination of the scope of protection of a plaintiff’s patent claims is essential to ascertaining whether infringement has been committed. For this reason, Shanghai courts have drawn lessons from the American judicial system at an earlier stage and by convening a preparatory hearing, require both parties to argue around how to interpret the claims and how to define the scope of protection of patent claims. Through this procedure, on the one hand, Shanghai courts could determine the scope of protection of a plaintiff’s claims, and make a technical comparison on this basis. On the other hand, in some cases, the parties could clearly understand whether the alleged infringing product falls into the scope of patent protection through such procedure, which helps facilitate settlement between the two parties.

2. Standardizing the procedure of technical appraisal. In patent infringement cases, many invention patents and some utility model patents require technical appraisal. In order to improve the quality and efficiency of trials, Shanghai courts standardized the procedural issues involved in appraisal at an earlier time. In October 2008, the Shanghai High People’s Court issued *Opinions on Several Issues Concerning Judicial Appraisal in Civil Proceedings of Intellectual Property Rights*, clarifying the standardized procedure of judicial appraisal in intellectual property lawsuits (including patent cases), including the court will convene both parties to determine the scope of appraisal, the appraisal institution should typically be appointed by the court, and issue an appraisal letter and provide reference materials, and that before the appraisal institution issues the appraisal report, the collegial panel may review it in advance and comment on suggested revision.

3. Standardizing on-site inspection procedures. In patent cases, on-site inspection is often required for large-scale alleged infringing products. Shanghai courts have standardized this procedure at an earlier time, including requesting on-site sequestration in order to solve the problem of spoliation of evidence and scenes, using audio or video recording and other electronic devices and measures to record the inspection scenes, so as to meet the requirements for subsequent technical comparison and analysis.

4. Actively exploring to reform the style of the judgment documents. Among the courts throughout the country, Shanghai courts started at an earlier time to attach designs and other drawings to the judgment to enhance the persuasiveness and authority of the judgment related to design patent infringement cases.

**(4) Issuing judicial practice notes to strengthen guidance on trial of patent cases.** During the adjudication of patent cases, Shanghai courts adhered to the working idea of exploring and investigating new approaches and summarizing experience while adjudicating cases, and implemented the working principle of standardized guidance on adjudication. The Shanghai High People’s Court issued a series of normative documents related to the adjudication of patent cases, in support of the standardization of patent case adjudication. In 2007, it issued the *Several Opinions on the Identification of the Existing Technical Defense in the Lawsuits of Invention and Utility Model Patent Infringement*, putting forward some opinions on the existing technology acceptable for defense, the scope of application of the prior art defense and its determination rules, and the specific comparison between the alleged infringing technical scheme and the existing technology. From 2008 to 2011, it published four issues of the *Solutions to Several Legal Questions on Patent Disputes* in succession, which comprehensively summarized the problems encountered during the adjudication of patent cases in Shanghai over the years, and provided systematic solutions to such issues at an earlier time in strict accordance with the provisions of the *Patent Law* and relevant judicial interpretations, and in combination with the practice, summarization and researches of patent case adjudication in Shanghai, including what the independent claims of an invention or utility model patent shall be composed of, how to determine the scope of protection for open and closed claims, how to determine the scope of protection for claims with functional or effect features, and how to determine whether the appearance of the alleged infringing products is identical or similar to that of the design patent. In 2010, it issued the *Opinions on Several Questions Concerning the Application of Statutory Compensation Methods in Determining the Amount of Compensation in Intellectual Property Infringement Disputes (for Trial Implementation)*, which summarized the factors that could measure the value of patent rights in patent infringement litigation, and put forward the corresponding opinions on determining the amount of compensation in patent infringement cases. In 2011, it issued the *Guidelines for the Trial of Patent Infringement Disputes (2011)* to deal with some difficult problems accumulated in adjudication practice at that time. Through summarizing the experience in the trial of patent cases over a period of time, the guidelines put forward 23 conclusive opinions, including the point that the method features in product claims shall have a definitive effect on determining the scope of protection of claims, which provided guidance on the adjudication work of patent cases in Shanghai at that time and thereafter. In 2013, after comprehensive summarization and specialized research, it issued the *Guidelines on the Trial of Rewards and Remuneration Disputes for Inventors or Designers of Service Invention and Creation*, to solve certain new difficulties experienced by the courts in the adjudication of patent cases that arise from relevant amendments to the system of rewards and remunerations to inventors or designers of service inventions and creations in the *Rules for the Implementation of the Patent Law* made in response to relevant amendments to the *Patent Law*. In 2018, following the *Several Opinions on Strengthening Judicial Protection of Intellectual Property Rights*, the *Answers to Several Questions about Determining the Amount of Compensation by Statutory Compensation Methods* was further promulgated. On the basis of previous relevant provisions and in combination with a full investigation, specific provisions on the amount of compensation for infringement of different types of patent rights were made to provide operational trial guidance for the determination of statutory compensation. In addition, to regulate the adjudication of similar cases by itself, the Shanghai Intellectual Property Court formulated the *Guidelines for Trial of Design Patent Infringement Disputes* and the *Several Opinions on Determining the Amount of Compensation for Patent Infringement in Accordance with Law* in 2016; in 2019, under the arrangement of the Shanghai High People's Court, it established the project to compile the *Guidelines for Handling Cases over Design Patent Infringement,* which will be issued after being discussed and approved by the judicial committee in 2020, which aims to effectively improve the level of standardization and specialization of patent trials.

**V. Constantly Enhancing Judges’ Competence in Patent Trials**

**(1) Actively performing academic research.** Over the years, Shanghai courts have been focusing on summarizing the experience of adjudication, sorting out difficult issues, and constantly improving their patent adjudication competence and research capacity in multiple ways such as writing papers for academic topics and conducting seminars and exchange programs. 1. Writing papers for academic topics. For example, Shanghai High People’s Court has completed a series research projects themed on patent law amendments that are organized and carried out by the National Intellectual Property Administration, including the *Criteria for Determining Invention and Utility Model Patent Infringement*, the *Civil Relief for Patent Infringement*, a research project commissioned by the Supreme People’s Court, and other important academic topics such as the *Relationship between Technical Standards and Patent Right Protection* and the *Research on the Rules of Software-Related Patent Law*. 2. Holding academic seminars. For example, the “Symposium on Technology Deterioration and Patent Infringement Judgment” discussed issues such as the deterioration of technology, the principle of redundant designation and the doctrine of estoppel. The seminar “Legal Issues of Reward and Remuneration for Inventors of Service Invention” discussed the application scope of the rewards and remunerations to inventors and designers of service inventions stipulated in the *Patent Law* and the *Rules for the Implementation of the Patent Law*. The “Seminar on Judicial Recognition of Equivalents in Patent Infringement” discussed topics such as the application of the doctrine of equivalents in patent infringement, the exceptions from the application of the doctrine of equivalents, and the trend in patent infringement equivalents in the field of pharmaceutical patents. The “Seminar on Judicial Protection of Computer Software Patents” discussed the issues of how to determine functional technical features, standards for determining whether the scope of protection of claims is clear, and the rules for determining patent infringement in patent cases related to computer software.

**(2) Constantly deepening professional collaboration and exchanges.** In early 2010, the Intellectual Property Tribunal of the Shanghai High People’s Court and the Patent Reexamination Board of the National Intellectual Property Administration established a mechanism for exchange and cooperation, and both sides sent staff to carry out work exchange programs and strengthen communication and coordination. The Patent Reexamination Board regularly dispatched examiners to Shanghai courts for exchange and guidance, provided technical consultation opinions in the professional field, and conducted discussions on difficult issues involved in cases. Shanghai courts regularly assigned judges to study at the Patent Reexamination Board, and regularly communicated with the Patent Reexamination Board on suspension of lawsuits. After that, the Patent Reexamination Board also specially sent staff to teach in Shanghai courts and provide training on patent examination. In 2018, the Shanghai High People’s Court further cooperated with the Patent Reexamination Board to research and explore the connection of patent administrative and judicial proceedings through research on the topic *Legal Issues on the Suspension of Invalidation Procedure* which later passed the project acceptance review.

**(3) Making efforts in fostering of patent judges.** For the patent adjudication team, Shanghai courts have been focusing on recruiting judges with great political integrity, profound legal knowledge, strong comprehensive ability and professional background in science and engineering. In view of many new and difficult issues in patent adjudication, Shanghai courts regularly organized thematic discussions to keep improving the judicial competence and professional skills of intellectual property judges. Shanghai courts assigned outstanding patent judges to work in the Intellectual Property Tribunal of the Supreme People’s Court, and invited the judges from the Supreme People’s Court to give specific guidance on adjudication. With an emphasis on broadening the channels of training and exchange, Shanghai courts invited experts and scholars in industry or academia from the Patent Reexamination Board, East China University of Politics and Law, Tongji University and Shanghai University to give lectures. Shanghai courts actively recommended judges to participate in learning and communication at home and abroad to further enhance their theoretical skills and broaden their horizons. At the same time, judges were encouraged to adjudicate and summarize high-quality cases, conduct academic research, participate in high-level education programs, and publish professional papers or personal monographs. At present, Shanghai courts have established a team of patent judges with great political integrity, full professional proficiency, excellent academic backgrounds, broad horizon and sound knowledge structure. Most of the judges own master’s degree or above, some with doctoral degrees, science and engineering degrees or overseas study backgrounds. Among them, a number of talents emerged such as experts of the National Intellectual Property Expert Library, national adjudication experts, researchers of the Research Center for the Judicial Protection of Intellectual Property Rights of the Supreme People’s Court, Shanghai intellectual property advisory experts, Shanghai young and middle-aged jurists, national excellent judges and other well-known and senior judges.

In retrospect, Shanghai courts have played a leading role in judicial protection, innovated methods of adjudication, accumulated abundant experience and made brilliant achievements through trial of patent cases. However, with the future ahead, in parallel with a new round of global technological revolution and industrial transformation, China is also accelerating the transformation and upgrading of its mode of economic development. With the unfolding reform of the system and mechanism of patent adjudication, the construction and upgrading of Shanghai as the globally influential science and technology innovation center as well as the increasing demand for judicial protection of technological innovation, the patent tribunals of Shanghai courts are bound to take heavier responsibilities, and face more arduous tasks. From a new historical starting point, Shanghai courts will continue to adhere to the principle of equal protection, impartiality and efficiency, fully utilize patent adjudication to stimulate and protect innovation, and promote scientific and technological progress and social development, make better response to the increasing demand for technological protection, and keep strengthening the judicial protection of patents. With these efforts, Shanghai courts aim to provide stronger judicial protection for patents, to further accelerate the creation of first-class business environment with international competitiveness in the city and the construction of Shanghai into a technological innovation center with global influence and the intellectual property center city in Asia-Pacific region.