

微生物学报

2017年 第57卷(第1-12期) 总目录

微生物组专刊

- 微生物组: 新机遇, 新天地——“微生物组专刊”序言 刘双江.6 (791)
..... 刘双江, 施文元.6 (792)
人体微生态与健康 and 疾病 严人, 江慧勇, 李兰娟.6 (793)
人类口腔微生物组学研究: 现状、挑战及机遇 周学东, 徐健, 施文元.6 (806)
人体肠道病毒组学研究进展 漆亚榕, 樊继强, 马迎飞.6 (822)
洞穴微生物组: 已知与未知 朱海珍, 姜成英, 刘双江.6 (829)
北极冻土区活跃层与永冻层土壤微生物组的空间分异
..... 张慧敏, Anders Priemé, Samuel Faucherre, Bo Elberling, 贾仲君.6 (839)
微生物降解茈过程中的关键细菌 王斌, 陈庆彩, 胡晓珂.6 (856)
微生物组学对植物病害微生物防治研究的启示 吴晓青, 周方园, 张新建.6 (867)
高效降解木质纤维素的白蚁肠道微生物组 李丹红, 王誉, 杨红.6 (876)
中国传统发酵食品微生物组研究进展 任聪, 杜海, 徐岩.6 (885)
单细胞、显微计数和高通量测序典型水稻土微生物组的技术比较 贾仲君, 蔡元锋, 俞娟莉, 杜文斌.6 (899)
单细胞尺度下的微生物学研究: 意义与方法 陈子熙, 陈磊, 张卫文.6 (920)
微生物组大数据管理与分析 亓合媛, 孙清岚, 马俊才.6 (932)

张树政院士纪念专刊

- 追忆中国酶工程研究的先驱者、糖工程研究的倡导者张树政院士——“张树政院士纪念专刊”序言 金城.8 (I)
张树政学术成长之路 程光胜.8 (V)
O-乙酰氨基葡萄糖(O-GlcNAc)修饰及其生物学功能研究进展 郑军平, 刘洪涛, 杜昱光.8 (1141)
glmS 核糖开关研究进展 周丁, 王倩, 祁庆生.8 (1152)
碳水化合物结合结构域研究进展 李恒, 唐双焱.8 (1160)
有机磷水解酶的挖掘、改造及应用 白云鹏, 程欢, 许建和.8 (1168)
微生物嗜盐酶的研究进展 石云云, 李信志, 张桂敏.8 (1180)
 β -N-乙酰氨基己糖苷酶及其合成寡糖的研究进展 陈晓迪, 王凤山, 肖敏.8 (1189)
白色念珠菌生物被膜研究进展 李瑞莲, 王倬, 杜昱光.8 (1206)
糖苷水解酶——生物转化制备活性糖苷与苷元的有效工具 原野, 胡彦波, 周义发.8 (1219)
木质纤维素降解酶生产菌株的遗传改造及应用 蒋艺, 苏宁, 方诩.8 (1235)
氨基酸脱氢酶的催化机理、分子改造及合成应用 陈曦, 高秀珍, 朱敦明.8 (1249)
退火温度 PCR 扩增 DNA 黄亚威, 杨昂, 上官云杰, 贺添艳, 徐文选, 刘亮伟.8 (1262)

<i>Solitalea canadensis</i> 源 β -N-乙酰氨基己糖苷酶的基因克隆、异源表达和酶学特性	王梦, 危双, 王婷, Josef Voglmeir, 刘丽.8 (1270)
一个新的 L-半胱亚磺酸脱羧酶基因的分析 and 突变	邓洁, 吴巧芬, 高华, 徐悦, 欧倩, 武波, 蒋承建.8 (1283)
新一代糖化酶高产菌株的选育及其工业应用	张天瑞, 赵秋伟, 李正华, 李寅, 张延平.8 (1293)
融合淀粉酶 AmyP-Clo 对大米生淀粉的高效降解	王静, 翟璐, 张销寒, 李凤玲, 肖亚中, 彭惠.8 (1301)

极端微生物专刊

生命的本质和特例——“极端微生物专刊”序言	徐俊.9 (1311)
高通量测序分析云南腾冲热海热泉真菌多样性	刘开辉, 丁小维, 张波, 唐小飞, 肖敏, 鲜文东, 李文均.9 (1314)
北欧海海水可培养细菌多样性	高丽, 史晓翀, 王晓宇, 张晓华.9 (1323)
中国南海部分深海沉积物真菌多样性及其抗菌活性	冯丽, 蒋群, 孙伟, 李英新, 张凤丽, 李志勇.9 (1332)
青藏高原阿里、那曲和海西地区土壤可培养放线菌的多样性	黄娇, 闫兵法, 黄英.9 (1342)
火球菌 <i>Pyrococcus furiosus</i> 瓣状核酸内切酶 1 的表达纯化及酶学特征	谢娟娟, 王风平, 刘喜朋.9 (1352)
优化的绿色荧光蛋白在嗜嗜热嗜酸古菌冰岛硫化叶菌中的表达与应用	黄奇洪, 马家兴, 倪金凤, 申玉龙.9 (1362)
嗜嗜热古菌的 ATP 非依赖型蛋白酶和肽酶研究进展	高晓威, 唐晓峰, 唐兵.9 (1373)
古菌蛋白激酶的研究进展	钟晴, 申玉龙, 黄奇洪.9 (1383)
深海热液口 Epsilon-变形菌的物种多样性与环境适应机理	臧扬, 高贝乐.9 (1392)
嗜嗜热古菌整合性遗传元件的研究进展	李臻, 宋庆浩, 徐俊.9 (1400)
可培养盐碱菌多样性的研究进展	赵百锁, 李俊.9 (1409)

微生物基因组修饰、编辑及挖掘专刊

微生物基因组：浩瀚的海洋——“微生物基因组修饰、编辑及挖掘专刊”序言	陈实.11 (1601)
CRISPR-Cas9 系统与 <i>mazF</i> 介导的大片段删减法在酿酒酵母染色体大片段删减中的比较	吴玉珍, 徐海津, 白艳玲, 张秀明, 乔明强.11 (1604)
副溶血性弧菌 CRISPR 的检测及其结构分析	刘伟奇, 董旭日, 汤荣, 陈雯静, 洪庆, 刘海泉, 潘迎捷, 赵勇.11 (1612)
CRISPR-CAS 系统介导的新一代基因靶向修饰技术及其在工业微生物中的应用	程妙文, 罗玮, 杜瑶.11 (1621)
CRISPR/Cas9 介导的基因组定点编辑技术在丝状真菌中的研究进展	刘星晨, 谷守芹, 董金皋.11 (1634)
细菌 CRISPR-Cas 系统的研究进展	胡丽, 陈实.11 (1643)
CRISPR/Cas 工具——分子遗传研究的新刃	李文均, 田野.11 (1653)
地中海富盐菌 PhaE 蛋白乙酰化修饰对其功能的影响	姜雄健, 王前, 刘桂明, 赵大贺, 刘景芳, 向华.11 (1665)
甲基化受体蛋白 MCP 2923 在羧基酮丛毛单胞菌 CNB-1 趋化过程中的作用	何蕴喆, 黄舟, 姜成英, 刘双江.11 (1676)

甲基化修饰在细菌表观调控的研究进展	童童, 王连荣.11 (1688)
蛋白质的甲基化研究进展	刘舒婷, 苏杨, 姚玉峰.11 (1698)
细菌的毒素-抗毒素系统: 定时炸弹还是免死金牌	郭云学, 李百元, 王晓雪.11 (1708)
麦芽窄食单胞菌 O UC_Est10 全基因组测序及脂类水解酶多样性分析	董浩, 芮俊鹏, 孙建安, 李香真, 毛相朝.11 (1721)
隐性次级代谢产物生物合成基因簇的激活及天然产物定向发现	侯路宽, 李花月, 李文利.11 (1722)
Red/ET 同源重组技术及在微生物基因组挖掘中的应用进展	郑文韬, 张友明, 卞小莹.11 (1735)

专 论

2016 年度国家自然科学基金微生物学学科项目申请与资助概况分析	李强, 李为民, 山红艳, 肖桂青, 温明章, 杜全生.1 (1)
--	-----------------------------------

学科先贤

我国微生物酶学奠基人——张树政	青宁生.2 (315)
微生物遗传学家盛祖嘉	青宁生.4 (621)
杰出的植物病理学家——方中达	青宁生.6 (942)
杨克迁研究员的链霉菌研究历程	王为善, 范可强, 陈义华, 李子龙.7 (1138)
为中国医学事业奉献一生的微生物学家——朱既明	青宁生.10 (1596)
杰出的微生物育种专家宋友礼	青宁生.12 (1935)

小型综述

大肠菌群与氮营养素互作及其对机体健康的影响	刘壮, 申军士, 朱伟云.1 (8)
细菌趋化信号通路中的磷酸酯酶 CheZ	刘晓琳, 刘卫, 解志红.1 (15)
脂肪酸及其氧化物对曲霉属真菌菌丝生长、产孢和黄曲霉毒素合成的影响	晏石娟, 黄文洁, 刘春明.1 (24)
动物宿主—肠道微生物代谢轴研究进展	皮宇, 高侃, 朱伟云.2 (161)
兼性厌氧细菌硫化氢的产生机理及其生理功能	吴根福, 高海春.2 (170)
小月菌属放线菌的研究进展	张长风, 余利岩, 张玉琴.2 (179)
寨卡疫苗研究进展	王然, 陈辉, 安静.2 (188)
醋酸菌耐酸机理及其群体感应研究新进展	夏凯, 朱军莉, 梁新乐.3 (321)
肺炎链球菌溶血素的研究进展	巫芮, 聂奎, 方仁东.3 (333)
细菌群体感应 LuxR solos 蛋白研究进展	叶晓锋, 朱军莉, 汪海峰.3 (341)
结核分枝杆菌 PhoP 系统研究进展	张媛, 谢建平.4 (461)
填埋场氯代烃生物降解过程的机制转化与调控研究及展望	杨旭, 邢志林, 张丽杰.4 (468)
黏菌代谢产物及其生物活性的研究进展	朱相杨, 李姝, 王琦.5 (631)
基于直接接触的微生物胞外电子传递	孔冠楠, 许玫英, 杨永刚.5 (643)
拟核结合蛋白调控链霉菌形态分化和次级代谢的作用和机制	廖国建, 沈兰, 胡昌华.5 (651)

肠道微生物调控宿主食欲的研究进展	张亚南, 余凯凡, 朱伟云.7 (951)
分枝杆菌毒素——分枝杆菌内酯与布鲁里溃疡	张媛, 李春燕, 谢建平.7 (961)
动物血红素过氧化物酶参与细菌氧化 Mn(II)的研究进展	郑洁, 孟佑婷, 刘桂君.7 (969)
MKP-1 在结核分枝杆菌感染中的作用和研究进展	黄丽军, 黄功华, 刘新光.7 (978)
病原体与宿主炎症小体相互作用	方仁东, 雷桂花, 彭远义.10 (1421)
第二信使分子 c-di-AMP 调控细菌中钾离子转运的机制	蔡霞, 何进.10 (1434)
胶霉毒素的研究进展	陈芳艳, 张常建, 韩黎.10 (1443)
细菌三型分泌系统效应蛋白转运的研究进展	孙思, 牛建军, 王岱.10 (1452)
丝状真菌中的 Velvet 家族蛋白	张虎, 曹双, 胡昌华.12 (1751)
纤维素的酶糖基化	马亚楠, 王明钰, 徐海.12 (1761)
革兰氏阴性菌脂蛋白 Lol 系统转运蛋白的功能及表面展示分泌机制	陈国忠, 张燕娇, 陈师勇.12 (1769)

研究报告

镰刀菌 Q7-31T 内切葡聚糖酶 Egn21 的分离纯化及酶学性质	常鑫园, 谢占玲, 张凤梅, 雷洁琼, 崔荣伟, 聂守一.1 (33)
气态烃诱导下油气微生物数量及功能基因变化特征	顾磊, 梅泽, 许科伟, 汤玉平, 杨帆, 孙永革.1 (43)
异源 D-海因酶和 N-氨甲酰水解酶共表达重组枯草芽孢杆菌的构建	王亚盟, 班睿, 刘露, 申雨.1 (54)
胶孢炭疽菌 <i>CgRGS2</i> 基因的克隆及生物学功能	吴曼莉, 李晓宇, 张楠, 徐爽, 柳志强.1 (66)
华癸根瘤菌 7653R <i>hfq</i> 基因突变株的构建及其生物学特性	马春草, 周雪娟, 谢福莉, 李友国.1 (77)
蜡样芽胞杆菌磷脂酶 C 在乳酸克鲁维酵母中重组表达、纯化及酶学性质分析	肖超, 张梁, 李颜颜, 辛瑜, 陈国安, 杨盛荣.1 (87)
聚苹果酸生产菌出芽短梗霉 CCTCCM2012223 的全基因组测序及序列分析	王永康, 宋晓丹, 李晓荣, 杨尚天, 邹祥.1 (97)
KPNB1 和 Ran 蛋白共同介导新城疫病毒基质蛋白的人核转运	段志强, 嵇辛勤, 许厚强, 赵佳福, 许海旭, 胡顺林, 刘秀梵.1 (109)
双组份系统 YvcPQ 抑制苏云金芽胞杆菌的芽胞形成	范青云, 张舒梦, 巩玉静, 何进.1 (121)
东北稻田水体噬藻体 <i>psbA</i> 基因多样性	荆瑞勇, 曹焜, 刘俊杰, 刘居东, 金剑, 刘晓冰, 王光华.1 (131)
耐辐射奇球菌铁结合蛋白 DRA0258 的抗氧化功能	杨粟, 刘梦葭, 王梁燕, 华跃进.1 (140)
新型隐球酵母 U6 启动子的鉴定、克隆及功能验证	王宇, 肖婷婷, 朱项阳, 赵雪茹, 魏东盛, 朱旭东.2 (197)
腐熟紫茎泽兰对土壤细菌、养分和辣椒产量品质的影响	焦玉洁, 杜如万, 王剑, 王勇, 吴叶宽, 刘东阳, 袁玲.2 (209)
地中海富盐菌中非编码 RNA 的鉴定与分析	王磊, 程飞跃, 赵大贺, 杨海波, 向华.2 (220)
转录调节因子 σ^{38} 介导铜绿假单胞菌绿脓菌素合成代谢调控	缪静, 迟晓艳, 王艳华, 冯志彬, 薛文文, 黄润, 张颢译, 田铃仟, 张洪倩, 翟俊杰, 葛宜和.2 (229)
瓦布贝母内生真菌 <i>Fusarium redolens</i> 6WBY3 多糖的理化性质及抗氧化活性	潘峰, 姚芸欣, 唐鑫, 吴卫.2 (240)
基于遗传片段分析系统的转录起始位点分析技术: 从预测到结果评估	黎志凤, 张文燕, 刘杨, 曲绍峰, 王岩, 朱丽萍, 李越中.2 (254)

猪支气管败血波氏杆菌 <i>hcp</i> 基因缺失株构建及其生物学特性研究	常宇慧, 张洪峰, 彭忠, 李慧, 陈焕春, 吴斌.2 (264)
中华苜蓿根瘤菌噬菌体的分离及主要壳蛋白基因 <i>g23</i> 的系统进化分析	于浩, 刘俊杰, 范国权, 王光华.2 (270)
基于比较代谢组学的理性优化方法提高阿维菌素产量	曹鹏, 胡栋, 张君, 张变强, 高强.2 (281)
低 H^+ -ATPase 活性植物乳杆菌突变菌筛选及基因表达的相对定量分析	张祥, 方卉, 谢东芳, 林越呈, 陶颖妍, 王宏鹏, 龚金炎, 葛青, 泮国荣, 黄俊, 尤玉如.2 (293)
水质净化乳酸菌的分离鉴定及发酵参数优化	谢凤行, 张峰峰, 周可, 赵玉洁, 赵琼, 孙海波.2 (304)
蝉棒束孢显微形态变异式样	曾文波, 常衬心, 李建平, 王元兵, 代永东, 虞泓.3 (350)
差异柠檬酸杆菌 GXW-1 β -葡萄糖苷酶的酶学性质及分子改造	江民华, 林厚民, 尹金阳, 王子龙, 庞浩, 黄日波, 杜丽琴.3 (363)
三峡水库神农溪 2014 年春季浮游藻类演替成因分析	徐慧, 龙良红, 纪道斌, 刘德富, 宋林旭, 崔玉洁, 苏青青, 黄亚男, 吴庆.3 (375)
桑椹肥大性菌核病病原菌生物学特性及流行性	吕蕊花, 赵爱春, 余建, 王传宏, 刘长英, 蔡雨翔, 余茂德.3 (388)
几株新鞘氨醇杆菌的趋化性及其相关基因组成特点	廖晓敬, 杨璐溪, Hetharua Buce, 周梦凯, 郑天凌, 田蕴.3 (399)
内生菌 KM-1-2 全基因组 ORFs 信号肽和分泌蛋白预测及功能分析	吕伟强, 刘聪, 黄丽丽, 颜霞.3 (411)
双孢蘑菇疣孢霉病的发病过程及病原菌的核相研究	张春兰, 徐济贵, 柿岛真, 李玉.3 (422)
低 Mg/Ca 条件下丛毛单胞菌 HJ-1 菌株诱导文石的形成	李磊, 李福春, 刘璐, 张宠宏, 吕杰杰.3 (434)
操纵茶树类黄酮 3'-羟基化酶生物合成 B 环-3',4'-二羟基黄酮类化合物	周天山, 余有本, 肖斌, 鲍露, 高岳芳.3 (447)
DNA 核酸酶与猪链球菌 9 型毒力的关系	唐欢宇, 任海燕, 吴宗福, 陆承平.4 (480)
青藏高原察尔汗盐湖地区可培养中度嗜盐菌的群落结构与多样性	沈硕.4 (490)
假定调控蛋白 STM14_3514 可降低鼠伤寒沙门菌对上皮细胞的侵袭力	蒋玲艳, 周启星, 王培胜, 江小涵, 冯露.4 (500)
FtsZ (236-245)区域的两性螺旋特性对大肠埃希氏菌 FtsZ 组装和功能的影响	马青素, 张慧娟, 郑晓伟, 霍雨佳, 卢锋.4 (513)
GWAS 研究大肠杆菌和金黄色葡萄球菌种间互作进化机制	陈南, 朱璟, 叶梅霞, 金一, 何晓青, 邬荣领.4 (526)
纳米银的抗菌特性及对多重耐药菌株的抗菌作用	陈学情, 蒋家璇, 任志鸿, 李娟, 张红英, 徐建国, 杜华茂.4 (539)
葡萄糖对小球藻 (<i>Chloralla</i> sp. HN08) 光合作用和生长的影响	郎筱宇, 刘志媛, 徐梦, 谢灵玉, 李容珍.4 (550)
23 株不同地理来源嗜酸硫杆菌的系统发育及其遗传差异	蔺朋武, 刘敏瑞, 张敏, 王爱英, 倪永清.4 (560)
两种混合样品策略对揭示杜鹃花根部真菌多样性的影响	黄彩微, 廖映辉, 丁琼.4 (571)
山东地区盐碱土花生种子际土壤微生物群落结构的研究	张智猛, 慈敦伟, 张冠初, 丁红, 杨吉顺, 戴良香, 张岱.4 (582)
两类产 NO 的亚硝酸盐还原酶的分布, 结构与序列比较及宏基因组分析	辛玉峰, 赵天颖, 曲晓华.4 (597)
红球菌 R04 苯甲酸转运相关膜蛋白 RHOGL009301 的生理功能	杨秀清, 郭兆琳.4 (609)

口蹄疫病毒结构蛋白 VP1 容忍外源标签的能力	
.....李平花, 马雪青, 寻广谨, 白兴文, 孙普, 袁红, 卢曾军, 刘在新.5 (659)	
有机磷降解菌的筛选及其促生特性	王欢, 王敬敬, 徐松, 赵维, 韩一凡, 王兴彪, 黄志勇.5 (667)
污水厂产超广谱 β 内酰胺酶大肠杆菌通过接合水平传递耐药性	
.....李晴, 张红娜, 刘玉庆, 翟静, 常维山.5 (681)	
三株海洋木霉的应用潜力	李闯, 张道敬, 罗远婵, 张久明, 田黎.5 (690)
尼古丁降解菌 SCUEC1 菌株的分离及其降解基因	
.....梅枫, 孔雯, 李阳, 马婷婷, 皮婷, 何冬兰, 程国军, 刘涛, 李晓华.5 (701)	
大豆根瘤内抗棉花枯萎病菌株的筛选及其防病试验	
.....赵龙飞, 徐亚军, 常佳丽, 李全芬, 杨静雅, 欧启凡, 杨梦冉.5 (710)	
肺囊康定产生菌 <i>Glarea lozoyensis</i> 线粒体基因组序列的再分析 (英文)	
.....张永杰, 赵宇翔, 张姝, 陈里, 刘杏忠.5 (736)	
一株产碱性蛋白酶菌株的筛选鉴定及酶学特性研究	
.....万文结, 薛芷筠, 张泽文, 李晓华, 程国军, 何冬兰.5 (737)	
骆驼瘤胃内降解含氮杂环化合物细菌的多样性	庄伟伟, 郑李娟, 曾献春.5 (748)
溶菌酶对瘤胃体外发酵、甲烷生成及微生物菌群结构的影响	
.....陈亚迎, 刘壮, 吕朋安, 申军士, 朱伟云.5 (758)	
探索大肠杆菌细胞膜合成过程中脂肪酸的掺入模式	谢玲玲, 宁婷婷, 卞光凯, 高丁, 刘天罡.5 (769)
基于高通量测序技术分析使它隆对玉米土壤细菌多样性的影响	许艳蕊, 方志军, 卢晓平, 郝鲁江.7 (985)
口蹄疫病毒结构蛋白 VP0 抑制 I 型干扰素信号通路的激活	牟宏芳, 马旭升, 罗志宽, 张坚, 郑海学.7 (994)
可用于辅助蛋白功能研究的人呼吸道合胞病毒双顺反子微型基因组的构建及拯救	
.....郑元博, 张秀娟, 许敏, 姜男, 彭向雷, 付远辉, 郑妍鹏, 洪涛, 何金生.7 (1004)	
理性设计盐桥构建伯克霍尔德菌脂肪酶热稳定突变体	
.....刘艳如, 赵丙春, 董盼盼, 邱黎清, 黄建忠, 朱晓兰, 王作镇, 舒正玉.7 (1014)	
双歧杆菌对中国对虾原肌球蛋白致敏小鼠的免疫调控作用	彭吉祥, 王彦波, 傅玲琳.7 (1026)
基于转录组分析的染色体大片段缺失及其对井冈霉素高产菌株的影响	
.....芦晨阳, 吴杭, 苏秀榕, 白林泉.7 (1038)	
枸杞根际土壤真菌群落多样性的高通量测序	李越鲲, 孙燕飞, 雷勇辉, 周旋, 尹跃, 秦晔.7 (1049)
水环境中重金属铜对异育银鲫肠道微生物的影响	涂宗财, 庞娟娟, 王辉, 张露, 沙小梅.7 (1060)
重寄生真菌盾壳霉 pH 信号通路中 Pal 相关基因的功能鉴定	
.....方迪, 楼轶, 吴明德, 张静, 李国庆, 杨龙.7 (1069)	
喜温嗜酸硫杆菌 SM-1 在不同温度下基因组的可塑性	
.....李小静, 江宝塔·穆哈德斯, 杨兰, 郑华军, 彭堂见, 张旭, 姜成英, 刘双江.7 (1083)	
Marinacarboline 甲基化基因 <i>mcbD</i> 的筛选及其功能	陈奇, 秦湘静, 李青连, 鞠建华.7 (1095)
甲烷菌对厌氧真菌不同碳源代谢的影响	金巍, 刘军花, 李袁飞, 成艳芬, 朱伟云.7 (1106)
大肠杆菌 NAD^+ 合成关键酶的克隆表达及发酵优化	
.....施慧, 穆晓清, 杨兴龙, 战绍斌, 田荣臻, 聂尧, 徐岩.7 (1112)	
两步 PCR 介导的 Red 重组技术快速敲除鼠疫耶尔森菌 sRNA 及染色体大片段	
.....王仁霞, 刘荣娇, 李子微, 王瑞欢, 杨瑞馥, 韩延平, 邓仲良.7 (1126)	

基于 iTRAQ 技术对植物乳杆菌 FS5-5 的耐盐特性分析	王茜茜, 宋雪飞, 郭晶晶, 张颖, 乌日娜.10 (1461)
青海湖与中国内陆盐湖古菌群落组成的比较	殷婷婷, 温洪宇, 袁振亚, 王秀颖, 王国振.10 (1471)
一株植物乳杆菌 Lp3 对高脂模型大鼠的益生作用	张娟, 石超, 王丽娜, 柯文灿, 陈明, 郭旭生, 丁武蓉.10 (1481)
原核生物全基因组中 16S rRNA 基因的识别	闫文凯, 许明敏, 张广乐, 乔宁, 徐炜娜, 陈园园, 张良云.10 (1493)
北黄海沉积物可培养产蛋白酶细菌分离鉴定	伍朝亚, 李岩, 曲慧敏, 张振鹏, 解志红, 孟宪刚.10 (1504)
高通量筛选诱变菌株降低黄酒发酵氨基甲酸乙酯前体积累	程艳, 堵国成, 周景文, 陈坚.10 (1517)
<i>crgA</i> 调控三孢布拉霉合成类胡萝卜素	巩尊洋, 罗玮, 杜瑶, 余晓斌.10 (1527)
一株东方醋酸杆菌分离与其促进果蝇生长发育	李玉娟, 苏琬真, 朱旭峰, 惠新琳, 樊晓光, 姚红, 常新剑, 刘威.10 (1536)
普通生酮基古龙酸菌中山梨糖脱氢酶和山梨酮脱氢酶的纯化及酶学性质分析	高媛, 曾伟主, 周景文, 陈坚.10 (1546)
里氏木霉 <i>VPS13</i> 基因缺失对菌丝分支、生孢和纤维素酶产量的影响	刘瑞艳, 侯运华, 王逸凡, 钱远超, 钟耀华.10 (1555)
芍药内生真菌的鉴定及产生活性次生代谢产物的评估	杨瑞先, 张拦, 彭彪彪, 蒙城功.10 (1567)
农杆菌介导的携带 <i>egfp</i> 基因载体转化寡雄腐霉	王沛雅, 郑群, 彭轶楠, 巩晓芳, 王治业, 杨晖.10 (1583)
<i>Arthrobacter ureafaciens</i> CZ31 丙氨酸脱氢酶可溶性表达及产酶条件优化	吴优, 周卫, 李尧益, 阮涛, 杨忠华.12 (1778)
HBx 抑制 IGFBP3 转录的机制	焦童, 刘宁宁, 叶昕.12 (1788)
黄蜻幼虫肠道分离菌 QTYC38 活性代谢产物的分离和鉴定	徐晓, 卢贻会, 张应烙.12 (1797)
木质素降解菌株的分离及其降解玉米秸秆过程中产酶特点	郭晓威, 王秀然, 解长睿, 孙丹, 陈欢, 高红桃, 张超, 李明堂, 李海燕.12 (1806)
解淀粉芽孢杆菌诱变育种及其突变株在降低酱油中氨基甲酸乙酯的应用	张梦寒, 李巧玉, 周朝晖, 卢丽玲, 堵国成, 陈坚, 方芳.12 (1817)
腺苷酸核糖基化因子 BbarfA 介导白僵菌孢子萌发和毒力	刘海, 赵婧, 李雪兵, 刘鹏飞, 罗廷英, 张永军.12 (1827)
<i>Candida amazonensis</i> FLP/FRT 基因敲除系统的构建及初步验证	高芝, 张梁, 李由然, 顾正华, 丁重阳, 石贵阳.12 (1839)
Sortase A 介导的(S)-羰基还原酶 II 寡聚体高效立体选择性转化(S)-苯基乙二醇	李坤鹏, 张荣珍, 李静, 刘海燕, 周丽仙, 李利宏, 李尧慧, 辜杨, 汪金珠, 邵佳佳, 全铭沁, 仇子玉, 徐岩.12 (1853)
球囊菌胁迫中华蜜蜂幼虫肠道过程中病原的转录组学研究	郭睿, 陈大福, 黄枳隼, 梁勤, 熊翠玲, 徐细建, 郑燕珍, 张翌楠, 解彦玲, 童新宇, 候志贤, 江亮亮, 刀晨.12 (1865)
猪源乳酸菌的分离、鉴定及其生物学特性	李雪莉, 王超, 虞德夫, 丁立人, 朱伟云, 杭苏琴.12 (1879)
家蚕微孢子虫感染对家蚕 BmN 细胞凋亡以及凋亡蛋白抑制因子 IAPs 表达的影响	朱峰, 肖圣燕, 张永红, 邵榆岚, 唐芬芬, 陈世良, 白兴荣.12 (1888)
过表达亚硝酸盐还原酶的重组大肠杆菌辅助污水短程硝化	辛玉峰, 曲晓华.12 (1898)
植物乳杆菌天然质粒系统进化和起源	孙大庆, 李洪飞, 杨健, 宋大巍.12 (1908)
地衣芽孢杆菌 FJAT-4 脂肽结构鉴定及其对尖孢镰刀菌的抑制作用	陈梅春, 王阶平, 肖荣凤, 刘波, 刘晓港, 葛慈斌, 阮传清, 朱育菁.12 (1924)

(卷终)

ACTA MICROBIOLOGICA SINICA

2017 Vol.57 No.1-12

CONTENTS

Special Issue on Microbiome

- The links among disease, health and human microbiota Ren Yan, Huiyong Jiang, Lanjuan Li.6 (805)
- Human oral microbiome: progress, challenge and opportunity Xuedong Zhou, Jian Xu, Wenyuan Shi.6 (821)
- Research progresses in human gut virome Yarong Qi, Jiqiang Fan, Yingfei Ma.6 (828)
- Cave microbiomes: the known and the unknown Haizhen Zhu, Chengying Jiang, Shuang-Jiang Liu.6 (838)
- Soil microbiomes modulate distinct patterns of soil respiration and methane oxidation in arctic active layer and permafrost
..... Huimin Zhang, Anders Priemé, Samuel Faucherre, Bo Elberling, Zhongjun Jia.6 (854)
- Key bacteria during microbial degradation of pyrene Bin Wang, Qingcai Chen, Xiaoke Hu.6 (866)
- Enlightenment from microbiome research towards biocontrol of plant disease
..... Xiaoqing Wu, Fangyuan Zhou, Xinjian Zhang.6 (875)
- Gut microbiome of wood-feeding termites Danhong Li, Yu Wang, Hong Yang.6 (884)
- Advances in microbiome study of traditional Chinese fermented foods Cong Ren, Hai Du, Yan Xu.6 (898)
- Comparison of soil microbiome by single cell technology, classical microscope methods and high-throughput MiSeq Sequencing
..... Zhongjun Jia, Yuanfeng Cai, Juanli Yun, Wenbin Du.6 (918)
- Microbiology at single-cell scale: significance and approaches Zixi Chen, Lei Chen, Weiwen Zhang.6 (931)
- Big data management and analysis of microbiome Heyuan Qi, Qinglan Sun, Juncai Ma.6 (941)

Special Issue for Chang Shu-cheng

- O-GlcNAcylation and related research progress in biological function Junping Zheng, Hongtao Liu, Yuguang Du.8 (1151)
- Research progress in glmS riboswitch Ding Zhou, Qian Wang, Qingsheng Qi.8 (1159)
- Carbohydrate-binding modules: assisted polysaccharide recognition Heng Li, Shuang-Yan Tang.8 (1167)
- Recent advances in discovery, engineering and applications of organophosphorus hydrolases
..... Yunpeng Bai, Huan Cheng, Jianhe Xu.8 (1179)
- Advances in microbial halophilic enzymes Yunyun Shi, Xinzhi Li, Guimin Zhang.8 (1188)
- β -N-Acetylhexosaminidases and their application in the synthesis of β -N-acetyl-D-hexosaminides
..... Xiaodi Chen, Fengshan Wang, Min Xiao.8 (1205)
- Recent progress in *Candida albicans* biofilm Ruilian Li, Zhuo Wang, Yuguang Du.8 (1218)
- Glycosidase: An effective tool for the preparation of active glycosides and aglycone Ye Yuan, Yanbo Hu, Yifa Zhou.8 (1234)
- Genetic modification and application of lignocellulose degrading fungus Yi Jiang, Ning Su, Xu Fang.8 (1248)

Catalysis, engineering and application of amino acid dehydrogenases	Xi Chen, Xiuzhen Gao, Dunming Zhu.8 (1261)
Amplification of DNA with double annealing temperature PCR .....	.....Yawei Huang, Ang Yang, Yunjie Shangguan, Tianyan He, Wenxuan Xu, Liangwei Liu.8 (1269)
Gene cloning, expression, purification and characterization of a beta- <i>N</i> -acetylhexosaminidase from <i>Solitalea Canadensis</i> .....	.....Meng Wang, Shuang Wei, Ting Wang, Josef Voglmeir, Li Liu.8 (1282)
Protein engineering by random mutagenesis and analysis of metagenome-derived cysteine sulfinate decarboxylase .....	..... Jie Deng, Qiaofen Wu, Hua Gao, Yue Xu, Qian Ou, Bo Wu, Chengjian Jiang.8 (1292)
Screening of high-glucoamylase-producing strain of <i>Aspergillus niger</i> with 2-deoxyglucose resistance and the industrial application .....	..... Tianrui Zhang, Qiuwei Zhao, Zhenghua Li, Yin Li, Yanping Zhang.8 (1300)
Hydrolysis of raw rice starch by a chimeric α -amylase engineered with α -amylase from <i>Clostridium butyricum</i> T-7 .....	..... Jing Wang, Lu Zhai, Xiaohan Zhang, Fengling Li, Yazhong Xiao, Hui Peng.8 (1307)

Special Issue on Extremophile

High-throughput sequencing to reveal fungal diversity in hot springs of Rehai at Tengchong in Yunnan .....	.....Kaihui Liu, Xiaowei Ding, Bo Zhang, Xiaofei Tang, Min Xiao, Wendong Xian, Wenjun Li.9 (1322)
Diversity of culturable bacterial in the surface seawater of the Nordic Sea .....	..... Li Shang, Xiaochong Shi, Xiaoyu Wang, Xiao-Hua Zhang.9 (1331)
Diversity and antimicrobial activity of fungi isolated from deep-sea sediments in South China Sea .....	..... Li Feng, Qun Jiang, Wei Sun, Yingxin Li, Fengli Zhang, Zhiyong Li.9 (1341)
Diversity of culturable actinobacteria from soils collected in Ali, Naqu and Haixi Districts on the Qinghai-Tibet Plateau .....	..... Jiao Huang, Bingfa Yan, Ying Huang.9 (1351)
Expression, purification and characterization of flap endonuclease 1 from <i>Pyrococcus furiosus</i> .....	..... Juanjuan Xie, Fengping Wang, Xipeng Liu.9 (1361)
Expression and application of an improved green fluorescence protein in the hyperthermophilic acidophile <i>Sulfolobus islandicus</i> .....	..... Qihong Huang, Jiaying Ma, Jinfeng Ni, Yulong Shen.9 (1372)
ATP-independent proteases and peptidases from hyperthermophilic archaea .....	..... Xiaowei Gao, Xiao-Feng Tang, Bing Tang.9 (1382)
Progress in archaeal protein kinases study .....	.....Qing Zhong, Yulong Shen, Qihong Huang.9 (1391)
Biodiversity and environmental adaptation of deep-sea hydrothermal vent Epsilon-proteobacteria .....	.....Yang Zang, Beile Gao.9 (1399)
Advances in studies on the integrative genetic elements of hyperthermophilic archaea .....	..... Zhen Li, Qinghao Song, Jun Xu.9 (1408)
Biodiversity of culture-dependent haloalkaliphilic microorganisms .....	..... Baisuo Zhao, Jun Li.9 (1420)

Special Issue on Genome Editing, Modification and Mining

Comparison of CRISPR-Cas9 system and <i>mazF</i> -mediated method for large deletions in <i>Saccharomyces cerevisiae</i> .....	..... Yuzhen Wu, Haijin Xu, Yanling Bai, Xiuming Zhang, Mingqiang Qiao.11 (1611)
Detection and analysis of CRISPR in <i>Vibrio parahaemolyticus</i> .....	..... Weiqi Liu, Xuri Dong, Rong Tang, Wenjing Chen, Qing Hong, Haiquan Liu, Yingjie Pan, Yong Zhao.11 (1620)

A new generation of targeted gene modification technology guided by CRISPR/CAS system and the application in industrial microorganism.....	Miaowen Cheng, Wei Luo, Yao Du.11 (1633)
Research progress of CRISPR/Cas9 system in genome targeted editing of filamentous fungi	Xingchen Liu, Shouqin Gu, Jingao Dong.11 (1642)
Research progress of CRISPR-Cas system in bacteria.....	Li Hu, Shi Chen.11 (1652)
CRISPR/Cas—a new tool for molecular genetic research	Wenjun Li, Ye Tian.11 (1664)
Acetylation regulates the function of PhaE in <i>Haloferax mediterranei</i>	Xiongjian Jiang, Qian Wang, Guiming Liu, Dahe Zhao, Jingfang Liu, Hua Xiang.11 (1675)
Chemotactic responses towards various organic compounds mediated by MCP2923 in <i>Comamonas testosteroni</i> CNB-1	Yunzhe He, Zhou Huang, Chengying Jiang, Shuangjiang Liu.11 (1687)
Research progress of epigenetic regulation role of DNA methylation in bacteria	Tong Tong, Lianrong Wang.11 (1697)
Progress in protein methylation	Shuting Liu, Yang Su, Yu-Feng Yao.11 (1707)
Bacterial toxin-antitoxin systems: yin and yang of death and persistence	Yunxue Guo, Baiyuan Li, Xiaoxue Wang.11 (1715)
Complete genome sequencing and diversity analysis of lipolytic enzymes in <i>Stenotrophomonas maltophilia</i> OUC_Est10	Hao Dong, Junpeng Rui, Jianan Sun, Xiangzhen Li, Xiangzhao Mao.11 (1716)
Activation of cryptic microbial biosynthetic gene clusters and structure-guided natural product discovery	Lukuan Hou, Huayue Li, Wenli Li.11 (1734)
Advances in Red/ET recombineering and its application for microbial genome mining	Wentao Zheng, Youming Zhang, Xiaoying Bian.11 (1746)

SPECIAL SECTION

Analysis of proposals received and funded in discipline of microbiology of the National Natural Science Foundation of China in 2016.....	Qiang Li, Weimin Li, Hongyan Shan, Guiqing Xiao, Mingzhang Wen, Quansheng Du.1 (7)
--	--

MINI-REVIEWS

Interaction between microflora and nitrogen nutrients in large intestine and its impacts on host health	Zhuang Liu, Junshi Shen, Weiyun Zhu.1 (14)
Advances in phosphatase CheZ of bacterial chemotaxis signaling pathway.....	Xiaolin Liu, Wei Liu, Zhihong Xie.1 (23)
Effects of fatty acids and oxylipins on fungal growth, sporulation and aflatoxin production in <i>Aspergillus</i>	Shijuan Yan, Wenjie Huang, Chun-Ming Liu.1 (32)
Advances in host-microbe metabolic axis	Yu Pi, Kan Gao, Weiyun Zhu.2 (169)
Endogenous production and physiological functions of hydrogen sulfide in facultative anaerobic bacteria	Genfu Wu, Haichun Gao.2 (178)
Research progress on the genus <i>Micrococcus</i>	Changfeng Zhang, Liyan Yu, Yuqin Zhang.2 (187)
Advances in Zika vaccines	Ran Wang, Hui Chen, Jing An.2 (196)
Advances in acid resistant mechanism of acetic acid bacteria and related quorum sensing system	Kai Xia, Junli Zhu, Xinle Liang.3 (332)
Research progress in pneumolysin.....	Rui Wu, Kui Nie, Rendong Fang.3 (340)

Advances in quorum-sensing LuxR solos in bacteria	Xiaofeng Ye, Junli Zhu, Haifeng Wang.3 (349)
<i>Mycobacterium tuberculosis</i> PhoP system	Yuan Zhang, Jianping Xie.4 (467)
Advances in transformation and regulation biodegradation of chlorinated hydrocarbons in landfill .....	..... Xu Yang, Zhilin Xing, Lijie Zhang.4 (479)
Metabolites and activities of myxomycetes	Xiangyang Zhu, Shu Li, Qi Wang.5 (642)
Direct contact-dependent microbial extracellular electron transfer	Guannan Kong, Meiyong Xu, Yonggang Yang.5 (650)
<i>Streptomyces</i> nucleoid-associated proteins: role in morphological differentiation and secondary metabolism .....	..... Guojian Liao, Lan Shen, Changhua Hu.5 (658)
Role of gut microbiota in host appetite control	Yanan Zhang, Kaifan Yu, Weiyun Zhu.7 (960)
Mycolactone: the toxin of <i>Mycobacterium</i> and Buruli ulcer	Yuan Zhang, Chunyan Li, Jianping Xie.7 (968)
Advances in bacterial Mn(II) oxidation by animal haem peroxidases	Jie Zheng, Youting Meng, Guijun Liu.7 (977)
Role of mitogen-activated protein kinase phosphatase-1 in <i>Mycobacterium tuberculosis</i> infection .....	..... Lijun Huang, Gonghua Huang, Xinguang Liu.7 (984)
Progress in research on interactions between pathogens and inflammasomes .....	..... Rendong Fang, Guihua Lei, Yuanyi Peng.10 (1433)
Second messenger c-di-AMP regulates potassium ion transport in bacteria	Xia Cai, Jin He.10 (1442)
Progress in the research of gliotoxin	Fangyan Chen, Changjian Zhang, Li Han.10 (1451)
Advances in studies of translocation of effector by bacterial type 3 secretion system	Si Sun, Jianjun Niu, Dai Wang.10 (1460)
Velvet family protein in filamentous fungi	Hu Zhang, Shuang Cao, Changhua Hu.12 (1760)
Progress in cellulase glycosylation	Yanan Ma, Mingyu Wang, Hai Xu.12 (1768)
Functions of Lol system proteins and surface-exposed mechanisms of lipoproteins in gram-negative bacteria .....	..... Guozhong Chen, Yan-Jiao Zhang, Shiyong Chen.12 (1777)

RESEARCH ARTICLES

Purification and characterization of endoglucanase Egn21 from <i>Fusarium</i> sp. Q7-31T .....	..... Xinyuan Chang, Zhanling Xie, Fengmei Zhang, Jieqiong Lei, Rongwei Cui, Shouyi Nie.1 (42)
Changes of microbial abundance and functional genes in oil and gas under gaseous hydrocarbon condition .....	..... Lei Gu, Ze Mei, Kewei Xu, Yuping Tang, Fan Yang, Yongge Sun.1 (53)
Construction of recombinant <i>Bacillus subtilis</i> by co-expression of heterologous D-hydantoinase and N-carbamoylase .....	..... Yameng Wang, Rui Ban, Lu Liu, Yu Shen.1 (65)
Gene cloning and biological function of <i>CgRGS2</i> in <i>Colletotrichum gloeosporioides</i> .....	..... Manli Wu, Xiaoyu Li, Nan Zhang, Shuang Xu, Zhiqiang Liu.1 (76)
Mutant construction and characterization of <i>hfq</i> in <i>Mesorhizobium huakuii</i> 7653R .....	..... Chuncao Ma, Xuejuan Zhou, Fuli Xie, Youguo Li.1 (86)
Heterologous expression, purification and characterization of phospholipase C from <i>Bacillus cereus</i> in <i>Kluyveromyces lactis</i> .....	..... Chao Xiao, Liang Zhang, Yanyan Li, Yu Xin, Guoan Chen, Shengrong Yang.1 (96)

Complete genome sequencing of polymeric acid-producing strain <i>Aureobasidium pullulans</i> CCTCC M2012223	Yongkang Wang, Xiaodan Song, Xiaorong Li, Shang-tian Yang, Xiang Zou.1 (108)
The nuclear import of Newcastle disease virus matrix protein depends on KPNB1 and Ran protein	Zhiqiang Duan, Xinqin Ji, Houqiang Xu, Jiafu Zhao, Haixu Xu, Shunlin Hu, Xiufan Liu.1 (120)
Regulation of sporulation by two-component system YvcPQ in <i>Bacillus thuringiensis</i>	Qingyun Fan, Shumeng Zhang, Yujing Gong, Jin He.1 (130)
Genetic diversity of <i>psbA</i> of cyanophage from paddy floodwater in northeast China	Ruiyong Jing, Kun Cao, Junjie Liu, Judong Liu, Jian Jin, Xiaobing Liu, Guanghua Wang.1 (139)
Antioxidant function of the iron binding protein DRA0258 in <i>Deinococcus radiodurans</i>	Su Yang, Mengjia Liu, Liangyan Wang, Yuejin Hua.1 (153)
Identification, cloning and functional verification of U6 promoter from <i>Cryptococcus neoformans</i>	Yu Wang, Tingting Xiao, Xiangyang Zhu, Xueru Zhao, Dongsheng Wei, Xudong Zhu.2 (208)
Effect of composted <i>Ageratina adenophora</i> on soil bacteria, nutrients, and pepper yield and quality	Yujie Jiao, Ruwan Du, Jian Wang, Yong Wang, Yekuan Wu, Dongyang Liu, Ling Yuan.2 (219)
Identification of non-coding RNA in <i>Haloflex mediterranei</i>	Lei Wang, Feiyue Cheng, Dahe Zhao, Haibo Yang, Hua Xiang.2 (228)
Regulation of pyocyanin biosynthesis by transcriptional factor sigma ³⁸ in <i>Pseudomonas aeruginosa</i> PAO1	Jing Miao, Xiaoyan Chi, Yanhua Wang, Zhibin Feng, Wenwen Xue, Run Huang, Haoyi Zhang, Lingqian Tian, Hongqian Zhang, Junjie Zhai, Yihe Ge.2 (239)
Physicochemical property and antioxidant activity of exopolysaccharide produced by endophytic fungal <i>Fusarium redolens</i> 6WBY3 isolated from <i>Fritillaria unibracteata</i> var. <i>wabuensis</i>	Feng Pan, Yunxin Yao, Xin Tang, Wei Wu.2 (253)
Transcriptional start site analysis based on genetic fragment analysis system: from prediction to data evaluation	Zhifeng Li, Wenyan Zhang, Yang Liu, Shaofeng Qu, Yan Wang, Liping Zhu, Yuezhong Li.2 (263)
Construction and characterization of an <i>hcp</i> mutant of swine <i>Bordetella bronchiseptica</i>	Yuhui Chang, Hongfeng Zhang, Zhong Peng, Hui Li, Huanchun Chen, Bin Wu.2 (269)
Isolation and phylogenetic analysis of major capsid gene (g23) of bacteriophages infecting <i>Sinorhizobium meliloti</i>	Hao Yu, Junjie Liu, Guoquan Fan, Guanghua Wang.2 (280)
Enhanced avermectin production by rational feeding strategies based on comparative metabolomics	Peng Cao, Dong Hu, Jun Zhang, Bianqiang Zhang, Qiang Gao.2 (292)
Isolation, characterization and real-time RT-PCR for relative quantification of gene expression in H ⁺ -ATPase-defective mutants from <i>Lactobacillus plantarum</i>	Xiang Zhang, Hui Fang, Dongfang Xie, Yuecheng Lin, Yingyan Tao, Hongpeng Wang, Jinyan Gong, Qing Ge, Guorong Pan, Jun Huang, Yuru You.2 (304)
Isolation, identification and fermentation optimization of lactic acid bacteria for aquaculture water purification	Fengxing Xie, Fengfeng Zhang, Ke Zhou, Yujie Zhao, Qiong Zhao, Haibo Sun.2 (314)
Micro-morphological variation pattern of <i>Isaria cicadae</i>	Wenbo Zeng, Chenxin Chang, Jianping Li, Yuanbing Wang, Yongdong Dai, Hong Yu.3 (362)
Characterization and molecular modification of β -glucosidase from <i>Citrobacter koser</i> GXW-1	Minhua Jiang, Houmin Lin, Jinyang Yin, Zilong Wang, Hao Pang, Ribo Huang, Liqin Du.3 (374)
Causes of succession of planktonic algae in Shennong bay of Three Gorges Reservoir in spring in 2014	

.....Hui Xu, Lianghong Long, Daobin Ji, Defu Liu, Linxu Song, Yujie Cui, Qingqing Su, Yanan Huang, Qing Wu.3	(387)
Biological and epidemiological characteristics of the pathogen of hypertrophy sorosis scleroteniosis, <i>Ciboria shiraiana</i> ·	
..... Ruihua Lü, Aichun Zhao, Jian Yu, Chuanhong Wang, Changying Liu, Yuxiang Cai, Maode Yu.3	(398)
Chemotaxis and characteristics of chemotactic genes in <i>Novosphingobium</i> strains·	
..... Xiaojing Liao, Luxi Yang, Hetharua Buce, Mengkai Zhou, Tianling Zheng, Yun Tian.3	(410)
Genome-wide prediction and analysis of the secretory proteins and ORFs signal peptide of ginkgo endophyte KM-1-2·	
..... Weiqiang Lü, Cong Liu, Lili Huang, Xia Yan.3	(421)
The development of <i>Agaricus bisporus</i> wet bubble disease and the nuclear phase of pathogen·	
..... Chunlan Zhang, Jize Xu, Makoto Kakishima, Yu Li.3	(433)
<i>Curvibacter</i> sp. strain HJ-1 induced the formation of aragonite under the condition of low Mg/Ca ratio·	
..... Lei Li, Fuchun Li, Lu Liu, Chonghong Zhang, Jiejie Lü.3	(446)
Engineering of a flavonoid 3'-hydroxylase from tea plant (<i>Camellia sinensis</i>) for biosynthesis of B-3',4'-dihydroxylated Flavones·	
..... Tianshan Zhou, Youben Yu, Bin Xiao, Lu Bao, Yuefang Gao.3	(458)
Relationship between DNA nuclease and virulence of <i>Streptococcus suis</i> serotype 9·	
..... Huanyu Tang, Haiyan Ren, Zongfu Wu, Chengping Lu.4	(489)
Community structure and diversity of culturable moderate halophilic bacteria isolated from Qrhan Salt Lake on Qinghai-Tibet Plateau·	
..... Shuo Shen.4	(499)
Putative regulatory protein STM14_3514 decreases <i>Salmonella</i> Typhimurium invasion of epithelial cells·	
..... Lingyan Jiang, Qixing Zhou, Peisheng Wang, Xiaohan Jiang, Lu Feng.4	(512)
Effect of amphipathic helix characteristics of FtsZ (236–245) domain on FtsZ assembly and its function in <i>Escherichia coli</i> strains·	
..... Qingsu Ma, Huijuan Zhang, Xiaowei Zheng, Yujia Huo, Feng Lu.4	(525)
Interactions between <i>Escherichia coli</i> and <i>Staphylococcus aureus</i> determined by genome-wide association analysis·	
..... Nan Chen, Jing Zhu, Meixia Ye, Yi Jin, Xiaoqing He, Rongling Wu.4	(538)
Antibacterial activity of silver nanoparticles against multiple drug resistant strains·	
..... Xueqing Chen, Jiaxuan Jiang, Zhihong Ren, Juan Li, Hongying Zhang, Jianguo Xu, Huamao Du.4	(549)
Effects of glucose on photosynthesis and growth of <i>Chloralla</i> sp. HN08 cells·	
..... Xiaoyu Lang, Zhiyuan Liu, Meng Xu, Lingyu Xie, Rongzhen Li.4	(559)
Phylogenetic and genetic heterogeneity of 23 <i>Acidithiobacillus</i> strains isolated from different geographical locations·	
..... Pengwu Lin, Minrui Liu, Min Zhang, Aiying Wang, Yongqing Ni.4	(570)
Two sample pooling strategies revealed different root-associated fungal diversity of <i>Rhododendron</i> species·	
..... Caiwei Huang, Yinghui Liao, Qiong Ding.4	(581)
Diversity of microbial community structure in the spermosphere of saline-alkali soil in Shandong area·	
..... Zhimeng Zhang, Dunwei Ci, Guanchu Zhang, Hong Ding, Jishun Yang, Liangxiang Dai, Dai Zhang.4	(596)
Distribution, structure and sequence alignment, and metagenomics analysis of two nitrite reductases with NO forming·	
..... Yufeng Xin, Tianying Zhao, Xiaohua Qu.4	(608)
Physiological function of membrane protein RHOGL009301 involved in transport of benzoate in <i>Rhodococcus</i> sp. R04·	
..... Xiuqing Yang, Zhaolin Guo.4	(620)
Capacity of the structural protein VP1 of foot-and-mouth disease virus potentially accommodating insertion of different foreign tags·	
..... Pinghua Li, Xueqing Ma, Guangjin Xun, Xingwen Bai, Pu Sun, Hong Yuan, Zengjun Lu, Zaixin Liu.5	(666)

Screening and growth promoting characteristics of efficient organophosphate-degradation bacteria	
..... Huan Wang, Jingjing Wang, Song Xu, Wei Zhao, Yifan Han, Xingbiao Wang, Zhiyong Huang.5 (680)	
Transfer of antimicrobial resistant genes of ESBL-producing <i>Escherichia coli</i> recovered from a wastewater treatment plant	
..... Qing Li, Hongna Zhang, Yuqing Liu, Jing Zhai, Weishan Chang.5 (689)	
Application potential of three marine <i>Trichoderma</i> spp.	
..... Chuang Li, Daojing Zhang, Yuanchan Luo, Jiuming Zhang, Li Tian.5 (700)	
Isolation and gene characterization of a nicotine-degradation strain <i>Agrobacterium tumefaciens</i> SCUEC1	
..... Feng Mei, Wen Kong, Yang Li, Tingting Ma, Ting Pi, Donglan He, Guojun Cheng, Tao Liu, Xiaohua Li.5 (709)	
Screening endophytic bacteria from soybean root nodules to inhibit <i>Fusarium oxysporum</i> f. sp. <i>vasinfectum</i>	
..... Longfei Zhao, Yajun Xu, Jiali Chang, Quanfen Li, Jingya Yang, Qifan Ou, Mengran Yang.5 (723)	
Reanalysis of the mitochondrial genome of the pneumocandin-producing fungus <i>Glarea lozoyensis</i>	
..... Yongjie Zhang, Yuxiang Zhao, Shu Zhang, Li Chen, Xingzhong Liu.5 (724)	
Isolation and identification of an alkaline protease producing strain and study on enzymatic properties	
..... Wenjie Wan, Zhijun Xue, Zewen Zhang, Xiaohua Li, Guojun Cheng, Donglan He.5 (747)	
Diversity of camel rumen bacteria degrading nitrogen heterocyclic compounds	
..... Weiwei Zhuang, Lijuan Zheng, Xianchun Zeng.5 (757)	
Effects of lysozyme on <i>in vitro</i> fermentation, methanogenesis and microbial community structure of the rumen	
..... Yaying Chen, Zhuang Liu, Peng'an Lv, Junshi Shen, Weiyun Zhu.5 (768)	
Fatty acid insertion mechanism during membrane synthesis in <i>Escherichia coli</i>	
..... Lingling Xie, Tingting Ning, Guangkai Bian, Ding Gao, Tiangang Liu.5 (781)	
Effects of starane on maize soil bacterial diversity analyzed by high-throughput sequencing technology	
..... Yanrui Xu, Zhijun Fang, Xiaoping Lu, Lujiang Hao.7 (993)	
Structural protein VP0 of foot-and-mouth disease virus inhibits type I interferon signaling pathway	
..... Hongfang Mou, Xusheng Ma, Zhikuan Luo, Jian Zhang, Haixue Zheng.7 (1003)	
Construction and application of dicistronic minigenome of human respiratory syncytial virus	
..... Yuanbo Zheng, Xiujuan Zhang, Min Xu, Nan Jiang, Xianglei Peng, Yuanhui Fu, Yanpeng Zheng, Tao Hong, Jinsheng He.7 (1013)	
Computer-aid screening of thermostable lipase LipA from <i>Burkholderia</i> sp. ZYB002	
..... Yanru Liu, Bingchun Zhao, Panpan Dong, Liqing Qiu, Jianzhong Huang, Xiaolan Zhu, Zuozhen Wang, Zhengyu Shu.7 (1025)	
Immunological regulation of <i>Fenneropenaeus chinensis</i> tropomyosin-stimulated sensitization by <i>Bifidobacterium infantis</i> in mice	
..... Jixiang Peng, Yanbo Wang, Linglin Fu.7 (1037)	
Effect of transcriptome-based large region deletion on validamycin A overproduction by <i>Streptomyces hygroscopicus</i> var. <i>jinggangensis</i> TL01	
..... Chenyang Lu, Hang Wu, Xiurong Su, Linqun Bai.7 (1048)	
Fungal community diversity in rhizosphere soil of <i>Lycium barbarum</i> L. based on high-throughput sequencing	
..... Yuekun Li, Yanfei Sun, Yonghui Lei, Xuan Zhou, Yue Yin, Ken Qin.7 (1059)	
Effect of heavy metal Cu on Allogynogenetic <i>Carassius auratus</i> intestinal microorganism	
..... Zongcai Tu, Juanjuan Pang, Hui Wang, Lu Zhang, Xiaomei Sha.7 (1068)	
Identification of pH-signaling pathway-related genes in mycoparasitic fungus <i>Coniothyrium minitans</i>	
..... Di Fang, Yi Lou, Mingde Wu, Jing Zhang, Guoqing Li, Long Yang.7 (1082)	
Genomic plasticity of <i>Acidithiobacillus caldus</i> SM-1 at different temperatures	
..... Xiaojing Li,	

Jiangbao ta.Mahadesi, Lan Yang, Huajun Zheng, Tangjian Peng, Xu Zhang, Chengying Jiang, Shuangjiang Liu.7 (1094)	
Screening and characterization of methylation tailoring gene- <i>mcbD</i> in marinacarboline biosynthesis	
..... Qi Chen, Xiangjing Qin, Qinglian Li, Jianhua Ju.7 (1105)	
Effect of methanogens on carbon metabolism of anaerobic fungi.....	
..... Wei Jin, Junhua Liu, Yuanfei Li, Yanfen Cheng, Weiyun Zhu.7 (1111)	
Cloning and expression of key enzymes for NAD ⁺ synthesis and optimization of fermentation in <i>Escherichia coli</i>	
..... Hui Shi, Xiaoqing Mu, Xinglong Yang, Shaobin Zhan, Rongzhen Tian, Yao Nie, Yan Xu.7 (1125)	
Two-step PCR mediated Red recombination technique for rapid deletion of <i>Yersinia pestis</i> sRNA and large fragment	
Chromosome..... Renxia Wang, Rongjiao Liu, Ziwei Li, Ruihuan Wang, Ruifu Yang, Yanping Han, Zhongliang Deng.7 (1137)	
Analysis of salt tolerance of <i>Lactobacillus plantarum</i> FS5-5 based on iTRAQ technology	
..... Qianqian Wang, Xuefei Song, Jingjing Guo, Ying Zhang, Rina Wu.10 (1470)	
Comparison of archaeal community composition between Qinghai Lake and other salt lakes in China	
..... Tingting Yin, Hongyu Wen, Zhenya Yuan, Xiuying Wang, Guozhen Wang .10 (1480)	
Probiotic role of <i>Lactobacillus plantarum</i> Lp3 on hyperlipidemia rats	
..... Juan Zhang, Chao Shi, Lina Wang, Wencan Ke, Ming Chen, Xusheng Guo, Wurong Ding.10 (1492)	
Recognition of 16S rRNA genes in prokaryotic genomes.....	
..... Wenkai Yan, Mingmin Xu, Guangle Zhang, Ning Qiao, Weina Xu, Yuanyuan Chen, Liangyun Zhang.10 (1503)	
Cultivable protease-producing bacteria in the sediments of North Yellow Sea	
.....Chaoya Wu, YanLi, Huimin Qu, Zhenpeng Zhang, Zhihong Xie, Xiangang Meng.10 (1516)	
High-throughput screening of mutant strain to reduce the accumulation of ethyl carbamate precursor in rice wine fermentation ·	
..... Yan Cheng, Guocheng Du, Jingwen Zhou, Jian Chen.10 (1526)	
Regulation effect of <i>crgA</i> on carotenoid production in <i>Blakeslea trispora</i>	
.....Zunyang Gong, Wei Luo, Yao Du, Xiaobin Yu.10 (1535)	
Isolation of <i>Acetobacter orientalis</i> and their promotion of the growth and development of <i>Drosophila melanogaster</i>	
..... Yujuan Li, Wanzhen Su, Xufeng Zhu, XinlinHui, Xiaoguang Fan, HongYao, Xinjian Chang, Wei Liu.10 (1548)	
Purification and characterization of L-sorbose dehydrogenase and L-sorbose dehydrogenase from <i>Ketogulonicigenium</i>	
<i>vulgare</i> WSH-001..... Yuan Gao, Weizhu Zeng, Jingwen Zhou, Jian Chen.10 (1554)	
Effects of VPS13 deletion on hyphal branch, sporulation and cellulase production in <i>Trichoderma reesei</i>	
.....Ruiyan Liu, Yunhua Hou, Yifan Wang, Yuanchao Qian, Yaohua Zhong.10 (1566)	
Fungal endophytes in <i>Paeonia lactiflora</i> and their secondary metabolites.....	
..... Ruixian Yang, Lan Zhang, Biaobiao Peng, Chenggong Meng.10 (1582)	
Transformation of enhanced green fluorescent protein gene in <i>Pythium oligandrum</i> mediated by <i>Agrobacterium tumefaciens</i>	
..... Peiya Wang, Qun Zheng, Yinan Peng, Xiaofang Gong, Zhiye Wang, Hui Yang.10 (1595)	
Expression and production optimization of alanine dehydrogenase from <i>Arthrobacter ureafaciens</i> CZ31.....	
..... You Wu, Wei Zhou, Yaoyi Li, Tao Ruan, Zhonghua Yang.12 (1787)	
Mechanism of the inhibitory effect of HBx on IGFBP3 transcription.....	
..... Tong Jiao, Ningning Liu, Xin Ye.12 (1796)	
Isolation and identification of bioactive secondary metabolites produced by strain QTYC38, a fungus isolated from the gut	
of <i>Pantala flavescens</i> larvae..... Xiao Xu, Yihui Lu, Yinglao Zhang.12 (1805)	

- Isolation of lignin-degrading strain and its enzyme producing characteristics in corn stover degradation
 Xiaowei Guo, Xiuran Wang, Changrui Xie, Dan Sun, Huan Chen, Hongtao Gao, Chao Zhang, Mingtang Li, Haiyan Li.12 (1816)
- Reduction of ethyl carbamate in soy sauce by *Bacillus amyloliquefaciens* mutants
 Menghan Zhang, Qiaoyu Li, Zhaohui Zhou, Liling Lu, Guocheng Du, Jian Chen, Fang Fang.12 (1826)
- An ADP-ribosylation factor, BbarfA, is involved in conidial germination and virulence in *Beauveria bassiana*.....
 Hai Liu, Jing Zhao, Xuebing Li, Pengfei Liu, Tingying Luo, Yongjun Zhang.12 (1838)
- Development and verification of an FLP/*FRT* system for gene deletion in *Candida amazonensis*
Zhi Gao, Liang Zhang, Youran Li, Zhenghua Gu, Zhongyang Ding, Guiyang Shi.12 (1852)
- Sortase A-mediated oligomers of (*S*)-carbonyl reductase II suitable for biotransformation of (*S*)-phenyl-1, 2-ethanediol ·
Kunpeng Li, Rongzhen Zhang, Jing Li,
 Haiyan Liu, Lixian Zhou, Lihong Li, Yaohui Li, Yang Gu, Jinzhu Wang, Jiajia Shao, Mingqin Quan, Ziyu Qiu, Yan Xu.12 (1864)
- Transcriptome analysis of *Ascosphaera apis* stressing larval gut of *Apis cerana cerana*
Rui Guo, Dafu Chen, Zhijian Huang, Qin Liang, Cuiling Xiong,
 Xijian Xu, Yanzhen Zheng, Zhaonan Zhang, Yanling Xie, Xinyu Tong, Zhixian Hou, Liangliang Jiang, Chen Dao.12 (1878)
- Isolation, identification and characterization of lactic acid bacteria from swine.....
Xueli Li, Chao Wang, Defu Yu, Liren Ding, Weiyun Zhu, Suqin Hang.12 (1887)
- Effect of *Nosema bombycis* on apoptosis of BmN cells and expression level of *BmIAPs*
Feng Zhu, Shengyan Xiao, Yonghong Zhang, Yulan Shao, Fenfen Tang, Shiliang Chen, Xingrong Bai.12 (1897)
- Shortcut nitrification of sludge by recombinant *Escherichia coli* overexpressing nitrite reductase.....
 Yufeng Xin, Xiaohua Qu.12 (1907)
- Phylogenetic evolution and origin of natural plasmids of *Lactobacillus plantarum*
Daqing Sun, Hongfei Li, Jian Yang, Dawei Song.12 (1923)
- Characterization of lipopeptides produced by *Bacillus licheniformis* FJAT-4 and their effect on *Fusarium oxysporum*.....
 Meichun Chen, Jieping Wang, Rongfeng Xiao, Bo Liu, Xiaogang Liu, Cijin Ge, Chuanqing Ruan, Yujing Zhu.12 (1934)

(The End)