

# 《应用声学》 2002 年 总目录

第 21 卷 第 1-6 期

题目

作者 期 页

## 综述与评论

|                                           |             |          |
|-------------------------------------------|-------------|----------|
| 纪念《应用声学》创刊 20 周年 .....                    | 应崇福         | 1 ( 1 )  |
| 微穿孔板和微缝板吸声体研究进展 .....                     | 刘 克         | 1 ( 3 )  |
| 粘接质量超声检测研究 .....                          | 李明轩         | 1 ( 7 )  |
| 进入 21 世纪的声纳技术 .....                       | 李启虎         | 1 ( 13 ) |
| 超声复合振动系统中的“局部共振”现象 —20 年来的应用和机理分析情况 ..... | 应崇福 范国良     | 1 ( 19 ) |
| 水下噪声及其控制技术进展和展望 .....                     | 何祚镛         | 1 ( 26 ) |
| 语言声学的进展 .....                             | 张 全         | 1 ( 35 ) |
| 我国建筑声学的 20 年回顾与展望 .....                   | 项端祈         | 1 ( 40 ) |
| 从建筑声学到环境声学 .....                          | 孙广荣         | 1 ( 46 ) |
| 编者的话 .....                                |             | 1 ( 2 )  |
| 热声制冷的研究现状 .....                           | 金 滔 王本仁 张淑仪 | 2 ( 1 )  |
| 混凝土材料声发射技术研究综述 .....                      | 纪洪广 裴广文 单晓云 | 4 ( 1 )  |

## 研究报告

|                                   |             |            |
|-----------------------------------|-------------|------------|
| 超声波防除积垢节能技术及设备开发 .....            | 丘泰球 胡爱军 姚成灿 | 等 2 ( 8 )  |
| 800Hz Terfenol-D 鱼鳃式弯张换能器 .....   | 莫喜平 刘建国 崔 政 | 等 2 ( 12 ) |
| 雷雨天声波的三维动态频谱测量研究 .....            | 苏 昉 田 维     | 2 ( 16 )   |
| 接收基阵垂直指向性引起的附加声传播损失 .....         | 宋志杰 韩 梅 吴小勇 | 等 2 ( 22 ) |
| 进一步改进边界元方法以克服振动声辐射计算中解的非唯一性 ..... | 王秀峰 陈心昭     | 3 ( 1 )    |
| 阵列幅相误差条件下的目标方位估计 .....            | 秦洪峰 黄建国 张群飞 | 3 ( 6 )    |
| 浅海中沉积层参数对多途到达时差反演声速剖面的影响 .....    | 张忠兵 马远良 鄢社锋 | 3 ( 11 )   |
| 弯张换能器尺寸与其同相振动谱频率的关系 .....         | 贺西平         | 3 ( 18 )   |
| 声频下驻波管中微粒的悬浮现象及其相位多普勒测量 .....     | 吴 嘉 席葆树 许宏庆 | 2 ( 21 )   |
| 液 - 液界面上折射声束位移的实验验证 .....         | 陈 宇 邓 伟 沈建国 | 等 3 ( 25 ) |
| 汉语语音视位的研究 .....                   | 王志明 蔡莲红     | 3 ( 29 )   |
| 北京七色光儿童艺术剧院的声学设计 .....            | 陈金京 王 峥 项端祈 | 3 ( 35 )   |
| 超声波防除积垢节能技术及设备开发 (续) .....        | 丘泰球 胡爱军 姚成灿 | 等 3 ( 40 ) |
| 超声波显像管振动清洗机的研制 .....              | 任金莲 张明铎 牛 勇 | 3 ( 46 )   |
| 相控阵多普勒计程仪的相控波束接收方案 .....          | 卢逢春 张殿伦 田 坦 | 4 ( 6 )    |
| 水声测量用声脉冲瞬态抑制方法的研究 .....           | 陈 毅 袁文俊 赵 涵 | 4 ( 10 )   |
| 声纳方程的瞬态形式讨论 .....                 | 方恒忠 鲍连承     | 4 ( 16 )   |
| 用超声透射频谱方法测定金属板的弹性常数 .....         | 陆 鹏 邹欣晔 王耀俊 | 4 ( 21 )   |

|                                |              |          |
|--------------------------------|--------------|----------|
| 虚拟式声显微镜及应用技术研究 .....           | 陈戈林 董方源 杨 琦等 | 4 ( 24 ) |
| 细小管材的自动化高精度超声测量 .....          | 毛 捷 郭成彬 张逸君等 | 4 ( 29 ) |
| 功率超声在废水处理中的应用 .....            | 熊宜栋          | 4 ( 33 ) |
| 声波吹灰器清灰机理研究及应用 .....           | 陈国金 张云电      | 4 ( 36 ) |
| 近场声压法在定位柴油机故障中的应用 .....        | 刘松林 李才良 马吉胜等 | 4 ( 41 ) |
| 头部尺寸对虚拟声像定位的影响 .....           | 谢菠荪          | 5 ( 1 )  |
| 高频语抗噪声通讯系统的语言可懂度实验研究 .....     | 唐志文 梁之安 鲁毅钧等 | 5 ( 8 )  |
| 声致发光单泡的 Mie 散射测量参数的理论计算 .....  | 葛曹燕 钱梦騄 李同保  | 5 ( 12 ) |
| 固体中脉冲激光激发声表面波的理论研究 .....       | 高会栋 沈中华 徐晓东等 | 5 ( 19 ) |
| 声发射监测隧道围岩活动性 .....             | 窦林名 何学秋      | 5 ( 25 ) |
| 用全谐振来解释超声加工中的“局部共振”现象 .....    | 徐可伟 朱训生 赵 波  | 5 ( 30 ) |
| 小尺度阻尼边界封闭空间声传递函数的有限元素法计算 ..... | 宁方立 陈克安 孙进才  | 5 ( 34 ) |
| 基于 FICP 算法提高对低频噪声时延的估计精度 ..... | 杨亦春 李晓东 田 静  | 6 ( 1 )  |
| 轻轨桥架声屏障降噪效果的测量与分析 .....        | 龚农斌 汤 峰 陈士杰等 | 6 ( 8 )  |
| 大连广电中心广播电视剧场声学设计 .....         | 王 峰 陈金京 项端祈等 | 6 ( 12 ) |
| 关于光纤水听器灵敏度的讨论 .....            | 倪 明 张仁和 胡永明等 | 6 ( 18 ) |
| 水声信道线性均衡的研究 .....              | 杨日杰 李淑华 张宗玉  | 6 ( 22 ) |
| 未知耦合腔体体积活塞发声声压级的检测 .....       | 张明铎          | 6 ( 28 ) |
| 低频宽带大功率镶拼圆管换能器 .....           | 刘公侠 陈兴华      | 6 ( 32 ) |
| 换能器辐射阻抗变化对匹配层参数的影响 .....       | 唐义政 俞宏沛 温 宁等 | 6 ( 36 ) |

## 综合报道

|                         |              |          |
|-------------------------|--------------|----------|
| 超声对细胞膜通透性的影响及应用 .....   | 刘晓艳 丘泰球 刘石生等 | 2 ( 26 ) |
| 超声波对沥青质分散作用的研究进展 .....  | 张龙力 杨国华 孙在春等 | 2 ( 30 ) |
| 超声波在废橡胶再生中应用的最新进展 ..... | 曾海泉 罗跃纲 闻邦椿等 | 2 ( 35 ) |
| 超声波在催化过程中的应用 .....      | 于凤文 计建炳 刘化章  | 2 ( 40 ) |
| 超声波对固定化酶活性的影响 .....     | 陈小丽 黄卓烈 丘泰球  | 2 ( 46 ) |
| 超声场强化溶液结晶研究进展 .....     | 胡爱军 丘泰球      | 4 ( 44 ) |
| 局域空间噪声主动控制技术的进展 .....   | 张继萍 潘家强 蒋伟康  | 5 ( 40 ) |
| 超声波强化超滤过程 .....         | 陈 健 肖凯军 郭祀远等 | 5 ( 45 ) |

## 研究简报

|                  |     |          |
|------------------|-----|----------|
| 超声微研磨装置的研制 ..... | 张云电 | 6 ( 40 ) |
|------------------|-----|----------|

## 新书评介

|                   |     |          |
|-------------------|-----|----------|
| 评介《神秘的声音世界》 ..... | 应崇福 | 4 ( 20 ) |
|-------------------|-----|----------|

## 动态·信息

3(5,10,45), 5(29), 6(27,43,44)

# APPLIED ACOUSTICS (BIMONTHLY)

## TOTAL CONTENTS , Vol. 21 , No.1-6 , 2002

### Reviews

|                                                                                                                                                                  |                                        |          |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------|----------|
| Commemorating The 20th anniversary of APPLIED ACOUSTICS .....                                                                                                    | YING Chongfu                           | 1 ( 1 )  |
| Advances in the study of microperforated-panel and microslit acoustic absorbers .....                                                                            | LIU Ke                                 | 1 ( 3 )  |
| Ultrasonic testing of adhesion .....                                                                                                                             | LI Mingxuan                            | 1 ( 7 )  |
| Sonar technology enters the 21 <sup>st</sup> century .....                                                                                                       | LI Qihu                                | 1 ( 13 ) |
| The phenomenon of " local resonance " in compound ultrasonic vibration systems—Applications and mechanism analyses during the 20 years after its discovery ..... | YING Chongfu Fan Guoliang              | 1 ( 19 ) |
| Review of some aspects of underwater noise including its control techniques and Its prospect .....                                                               | HE Zuoyong                             | 1 ( 26 ) |
| Advances in linguistic acoustics .....                                                                                                                           | ZHANG Quan                             | 1 ( 35 ) |
| Architectural acoustics in China—20 years review and prospect .....                                                                                              | XIANG Duanqi                           | 1 ( 40 ) |
| From architectural acoustics to environmental acoustics .....                                                                                                    | SUN Guangrong                          | 1 ( 46 ) |
| From the editor .....                                                                                                                                            |                                        | 1 ( 2 )  |
| Advances in thermoacoustic refrigeration .....                                                                                                                   | JIN Tao WANG Benren ZHANG Shuyi        | 2 ( 1 )  |
| Technique of acoustic emission for concrete material .....                                                                                                       | JI Hongguang Pei Guangwen SHAN Xiaoyun | 4 ( 1 )  |

### Research Reports

|                                                                                                                                                              |                                          |          |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------|----------|
| A technique of energy saving in scale control by ultrasonic wave and development of relevant ultrasonic equipment .....                                      | QIU Taiqiu HU Aijun YAO Chengcan et al   | 2 ( 8 )  |
| 800Hz Terfenol-D Fish-lip flextensional transducer .....                                                                                                     | MO Xiping LIU Jianguo CUI Zheng et al    | 2 ( 12 ) |
| Measurements of the three-dimensional dynamic frequency spectrum of infrasonic waves from thunder-showers .....                                              | SU Fang TIAN Wei                         | 2 ( 16 ) |
| Additional sound transmission loss resulting from directivity in the vertical plane of a receptive array .....                                               | SONG Zhijie HAN Mei WU Xiaoyong et al    | 2 ( 22 ) |
| Overcoming the non-uniqueness of solution in the calculation of acoustic radiation by a vibrating body with a further improved boundary element method ..... | WANG Xiufeng CHEN Xinzhaoh               | 3 ( 1 )  |
| Estimation of direction-of-arrival in the presence of amplitude and phase errors .....                                                                       | QIN Hongfeng HUANG Jianguo ZHANG Qunfei  | 3 ( 6 )  |
| The effect of sediment parameters on sound speed profile inversion using time differences of acoustic ray arrivals in shallow water .....                    | ZHANG Zhongbing MA Yuanliang YAN Shefeng | 3 ( 11 ) |
| The relationship between the dimensions of the flextensional transducer and its in-phase vibrating resonance frequency .....                                 | He Xiping                                | 3 ( 18 ) |
| Particles suspension in standing-wave tube under acoustic frequency and its Phase Doppler measurements .....                                                 | WU Jia XI Baoshu XU Hongqing             | 3 ( 21 ) |
| Study of refracted beam-shift on liquid-liquid interface .....                                                                                               | CHEN Yu DENG Wei SHEN Jianguo et al      | 3 ( 25 ) |
| Study of Chinese viseme .....                                                                                                                                | WANG Zhiming CAI Lianhong                | 3 ( 29 ) |
| Acoustic design of Beijing Qiseguang Children Theater .....                                                                                                  | CHEN Jinjing WANG Zheng XIANG Duanqi     | 3 ( 35 ) |
| A technique of energy saving in scale control by ultrasonic wave and development of the relevant ultrasonic equipment (continued) .....                      | QIU Taiqiu HU Aijun YAO Chengcan et al   | 3 ( 40 ) |
| An ultrasonic vibration cleaning machine for kinescope .....                                                                                                 | REN Jinlian ZHANG Mingduo NIU Yong       | 3 ( 46 ) |
| Phased beam receiving scheme for phased Doppler log .....                                                                                                    | LU Fengchun ZHANG Dianlun TIAN Tan       | 4 ( 6 )  |
| Investigation on the sound pulse transient suppression method used in the underwater acoustic measurement .....                                              | CHEN Yi YUAN Wenjun ZHAO Han             | 4 ( 10 ) |
| Discussions on the transient-state sonar equation .....                                                                                                      | FANG Hengzhong BAO Liancheng             | 4 ( 16 ) |
| Determination of elastic constants of a metal plate from its ultrasonic transmission spectrum .....                                                          | LU Peng ZOU Xinye WANG Yaojun            | 4 ( 21 ) |
| A virtual scanning acoustic microscope and its feature extraction .....                                                                                      | CHEN Gelin DONG Fangyuan YANG Qi et al   | 4 ( 24 ) |

|                                                                                                                      |                                             |          |
|----------------------------------------------------------------------------------------------------------------------|---------------------------------------------|----------|
| Automatic high-precision ultrasonic measurement of fine tubing .....                                                 | MAO Jie GUO Chengbin HUANG Zhenyan et al    | 4 ( 29 ) |
| Application of power ultrasound in waste water treatment .....                                                       | XIONG Yidong                                | 4 ( 33 ) |
| Cleaning mechanism and application of sonic cleaners .....                                                           | CHEN Guojin ZHANG Yundian                   | 4 ( 36 ) |
| Method of near-field acoustic pressure for ascertaining diesel fault .....                                           | LIU Songlin LI Cailiang MA Jisheng et al    | 4 ( 41 ) |
| Effect of head size on virtual sound image localization .....                                                        | XIE Bosun                                   | 5 ( 1 )  |
| Study of intelligibility of Hi-frequency phrase anti-noise communication system .....                                | TANG Zhiwen LIANG Zhian LU Yijun et al      | 5 ( 8 )  |
| Calculation of Mie scattering parameters for sonoluminescing single bubble .....                                     | GE Caoyan QIAN Menglu LI Tongbao            | 5 ( 12 ) |
| Theoretical study of surface acoustic wave generated by pulsed laser in solids .....                                 | GAO Huidong SHEN Zhonghua XU xiaodong et al | 5 ( 19 ) |
| Monitoring the rock activity around a tunnel with AE .....                                                           | DOU Linming HE Xueqiu                       | 5 ( 25 ) |
| Using full resonance to explain the "local resonance" phenomenon in ultrasonic machining .....                       | XU Kewei ZHU Xunsheng ZHAO Bo               | 5 ( 30 ) |
| Use of finite element method for computing sound transfer function in small enclosed-room with damped boundary ..... | NING Fangli CHEN Ke'an SUN Jincai           | 5 ( 34 ) |
| Improving the accuracy of time-delay estimation for low-frequency noise based on the algorithm of FICP .....         | YANG Yichun LI Xiaodong TIAN Jing           | 6 ( 1 )  |
| Measurement and analysis of the noise reduction effect of noise barriers beside a light rail .....                   | GONG Nongbin TANG Feng CHEN Shijie et al    | 6 ( 8 )  |
| Acoustical design for the broadcast and TV theater of Dalian Broadcast and TV Center .....                           | WANG Zheag CHEN Jiqing XIANG Duanqi et al   | 6 ( 12 ) |
| A discuss on the sensitivity of fiber-optic hydrophone .....                                                         | NI Ming ZHANG Renhe HU Yongming et al       | ( 18 )   |
| Study of underwater acoustic channel linear equalization .....                                                       | YANG Rijie LI Shuhua ZHANG Zhunyu           | 6 ( 22 ) |
| Measurement of the sound pressure level of pistonphone with unknown coupler volume .....                             | ZHANG Mingduo                               | 6 ( 28 ) |
| High power mosaic cylindrical transducer of low frequency and broad band .....                                       | LIU Gongxia CHEN Xinghua                    | 6 ( 32 ) |
| Effect of changing the transducer impedance on the matching layer parameters .....                                   | TANG Yizheng YU Hongpei WEN Ning et al      | 6 ( 36 ) |

### Summing-up Reports

|                                                                                            |                                             |          |
|--------------------------------------------------------------------------------------------|---------------------------------------------|----------|
| The influence of ultrasound to the permeability of cell membrane and its application ..... | LIU Xiaoyan QIU Taiqiu LIU Shishen et al    | 2 ( 26 ) |
| Progress in using ultrasound in asphaltene dispersing .....                                | ZHANG Longli YANG Guohua SUN Zaichun et al  | 2 ( 30 ) |
| Application of ultrasound to devulcanization of waste rubber .....                         | ZENG Haiquan LUO Yuegang WEN Bangchun et al | 2 ( 35 ) |
| Application of ultrasound in catalytic process .....                                       | YU Fengwen JI Jianbing LIU Huazhang         | 2 ( 40 ) |
| Effect of ultrasound on activities of immobilized enzyme .....                             | CHEN Xiaoli HUANG Zhuolie1 QIU Taiqiu       | 2 ( 46 ) |
| Advances in the study of enhancement of solution crystallization by ultrasonic field ..... | HU Aijun QIU Taiqiu                         | 4 ( 44 ) |
| Progress of active noise control in a local zone .....                                     | ZHANG Jiping PAN Jiaqiang JIANG Weikang     | 5 ( 40 ) |
| Ultrasonic enhancement of ultrafiltration .....                                            | CHEN Jian XIAO Kaijun GUO Siyuan et al      | 5 ( 45 ) |

### Research Notes

|                                                     |               |          |
|-----------------------------------------------------|---------------|----------|
| Development of ultrasonic fine-lapping device ..... | ZHANG Yundian | 6 ( 40 ) |
|-----------------------------------------------------|---------------|----------|

|                           |          |
|---------------------------|----------|
| <b>Book Reviews</b> ..... | 4 ( 20 ) |
|---------------------------|----------|

|                                    |                                   |
|------------------------------------|-----------------------------------|
| <b>Trends • Informations</b> ..... | 3(5,10,45), 5(29), 6 ( 27,43,44 ) |
|------------------------------------|-----------------------------------|