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主要研究方向

1. 板材成形
(1) 冲压成形与质量控制; (2) 复杂形状薄壁零件成形及质量控制; (2.1) 航空、航天动力机械（发动机）高强度耐热轻量化复杂形状壳体结构整体成形及质量控制; (2.2) 汽车覆盖件成形与质量控制; (2.3) 钛合金板材零件常温下成形及质量控制。
2. 粘性介质压力成形(VPF)
3. 钛、钛铝合金等轻质低塑性材料电塑性成形
4. 材料加工过程力学问题与数值分析方法
(1) 板材成形过程力学问题与有限元分析方法. (2) CAD/CAE 一体化设计分析方法. (3) 体积成形过程力学问题与有限元分析方法.

社会兼职

中国机械工程学会工业炉分会常务理事，青年工作委员会主任委员

中国机械工程学会锻压分会加热专业委员会副主任委员

黑龙江省机械工程学会理事

黑龙江省机械工程学会工业炉分会理事长

主要学术成果

文章

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所获奖励

1. 中国高校科技进步二等奖一项，第一完成人。
2. 国防科技进步二等奖一项，第二完成人。