

MATERIALS AND STRUCTURES SYMPOSIUM (C2)  
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MATERIAL SELECTION AND DESIGN OF FLEXIBLE RING BAFFLES FOR DAMPING LIQUID  
OSCILLATIONS IN LARGE-SCALE OXYGEN TANKS

**Abstract**

Ring baffles for damping liquid oscillations is a part of rocket tank,it is very important to structure of rocket for damping liquid oscillations.In new generation of Long March Rocket with the larger scale oxygen tanks,the weight of ring baffles is increased,further more,safetymore efficiency and reliability of ring baffles is more important.Developing a new flexible nonmetal ring baffles which can be used in oxygen environment is meaningful.We finally confirm a nonmetal material to design ring baffles by oxygen impact test,and its weight is about third of aluminium which is traditional material used in baffles'making.