

# ADVANCED FUNCTIONAL MATERIALS



## GRAPHENE

A. V. Sumant and colleagues use graphene as an effective solid lubricant for rubbing steel surfaces. On page 6640 the team demonstrates that just one atom thick graphene layer dramatically suppresses both friction and wear of steel for thousands of sliding passes. This extraordinary wear resistance of graphene is realized by in hydrogen atmosphere, which passivates the defect sites and stabilizes graphene on the substrate.