

# ADVANCED FUNCTIONAL MATERIALS



## FEMALE LOCUST DIGGING VALVES

The Bauhaus-inspired cover reflects the “good enough” principle by embracing minimalist, functional design. Similarly, the female locust uses its digging valves to burrow underground, achieving sufficient functionality without requiring the hardest or stiffest materials. Unlike the locust mandibles, these valves maintain their effectiveness with a metal ion-free composition. In article number 2413510, Bat-El Pinchasik and co-workers highlight how natural structures can optimize time-dependent performance while conserving energy and resources, demonstrating a sustainable strategy that can inspire the design of biomimetic materials.