**Poster**

# The power of antibiotic coordination frameworks towards enhanced antimicrobial activity

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In the context of global health, tackling the critical issue of antimicrobial resistance (AMR) has become a top priority. A promising strategy in this effort involves harnessing the synergistic effects between safe metals and commonly used antibiotics or molecules with known antimicrobial properties. Our research on antibiotic coordination frameworks explores the innovative field of metal-antibiotic coordination frameworks (ACFs), leveraging the potential of widely available antibiotics.
By utilizing mechanochemistry as an innovative synthetic method, ACFs offer a sustainable and efficient approach to combating microbial resistance, paving the way for transformative advancements in antimicrobial therapy. Our systematic exploration reveals the dynamic interactions between metal ions and antibiotics, resulting in the creation of robust antibiotic coordination frameworks that surpass conventional methods, producing novel forms with enhanced antimicrobial efficacy.