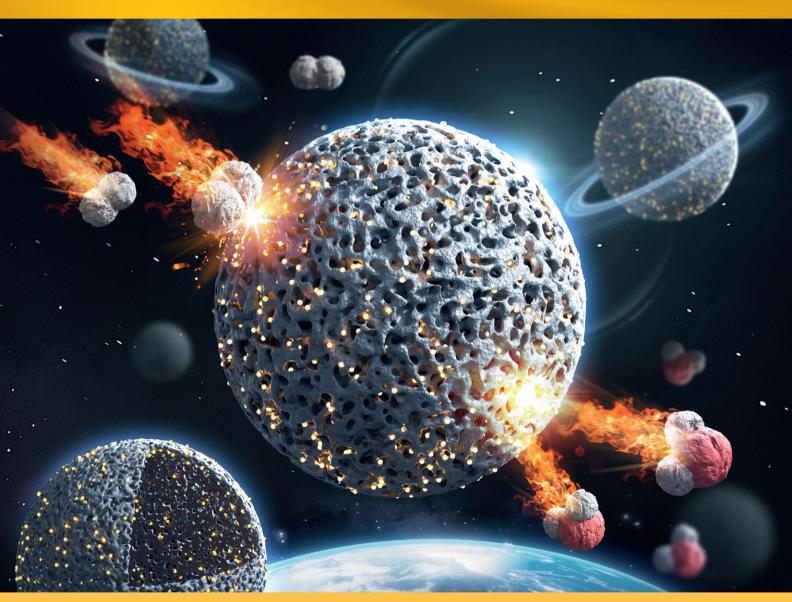


Journal of COLLOID AND INTERFACE SCIENCE



Journal of Colloid and Interface Science 677 (2025) 997–1004 Electronic regulation of hcp-Ru by d-d orbital coupling for robust electrocatalytic hydrogen oxidation in alkaline electrolytes.

The obtained hcp-RuCo@C, which features a unique hollow spherical structure, demonstrated superior hydrogen oxidation activity and remarkable resistance to CO poisoning under alkaline conditions. This highly efficient electrocatalysis can be ascribed to the alloying-induced d-d electronic interaction.