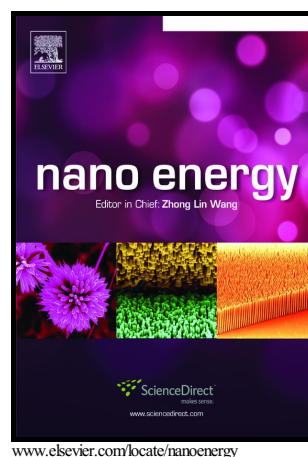


Co/Co₉S₈@S,N-Doped Porous Graphene Sheets
Derived from S, N Dual Organic Ligands
Assembled Co-MOFs as Superior Electrocatalysts
for Full Water Splitting in Alkaline Media

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Abstract

Here we report the synthesis of Co/Co₉S₈ core-shell structures anchored onto S, N co-doped porous graphene sheets (Co/Co₉S₈@SNGS) from thiophene-2,5-dicarboxylate (Tdc) and 4,4'-bipyridine (Bpy) dual organic ligands assembled Co-based metal-organic frameworks (Co-MOFs) *in situ* grown on graphene oxide sheets (Co-MOFs@GO) by a room-temperature solution reaction. S-containing Tdc and N-containing Bpy not only trigger the growth of Co-MOFs nanocrystals with a fixed S/N atomic ratio of 1:2.4 on GO sheets in the presence of Co²⁺ in H₂O/NaOH

¹ These authors contributed equally to this work.

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