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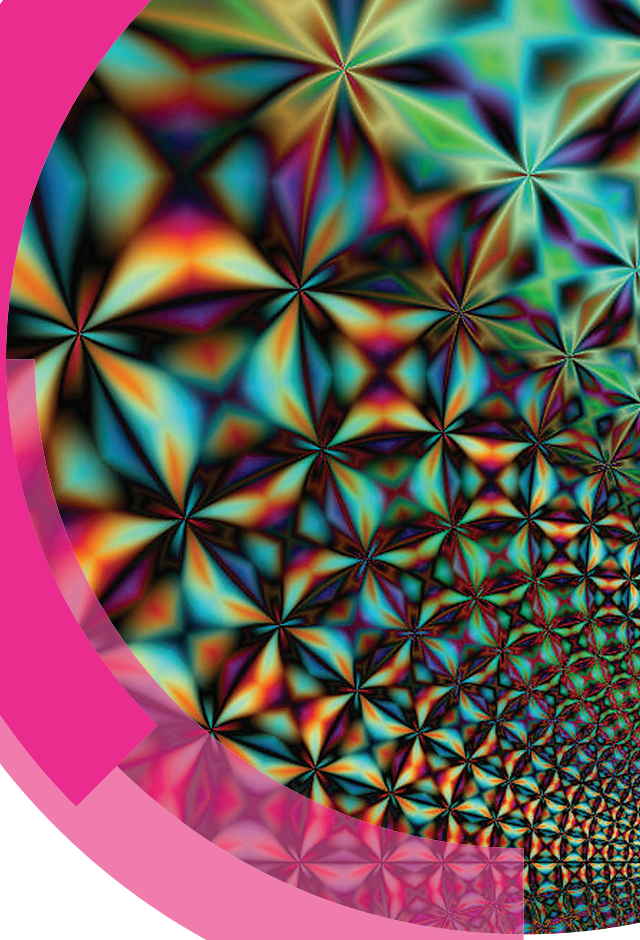

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Showcasing research from Dr Dong-Li Meng's laboratory, Fujian Key Laboratory of Functional Marine Sensing Materials, College of Materials and Chemical Engineering, MinJiang University, Fuzhou 35108, P. R. China.

Boosting the oxygen reduction activity of non-metallic catalysts *via* geometric and electronic engineering through nitrogen and chlorine dual-doping

A bottom-up method was developed for creating metal-free electrocatalysts dual-doped with nitrogen and chlorine (CCTF-700), through the trimerization reaction of 1,3-bis(4-cyanophenyl) imidazolium chloride. CCTF-700 exhibits a more positive onset and half-wave potential (0.85 V *vs.* RHE), enhanced diffusion-limited current density, and superior stability compared to the standard 20 wt% Pt/C catalyst. Additionally, CCTF-700 also ranks as a top contender among the best of previously reported metal-free electrocatalysts in alkaline media to date.

As featured in:

See Dong-Li Meng, Yuan-Biao Huang *et al.*, *Dalton Trans.*, 2024, **53**, 12486.

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