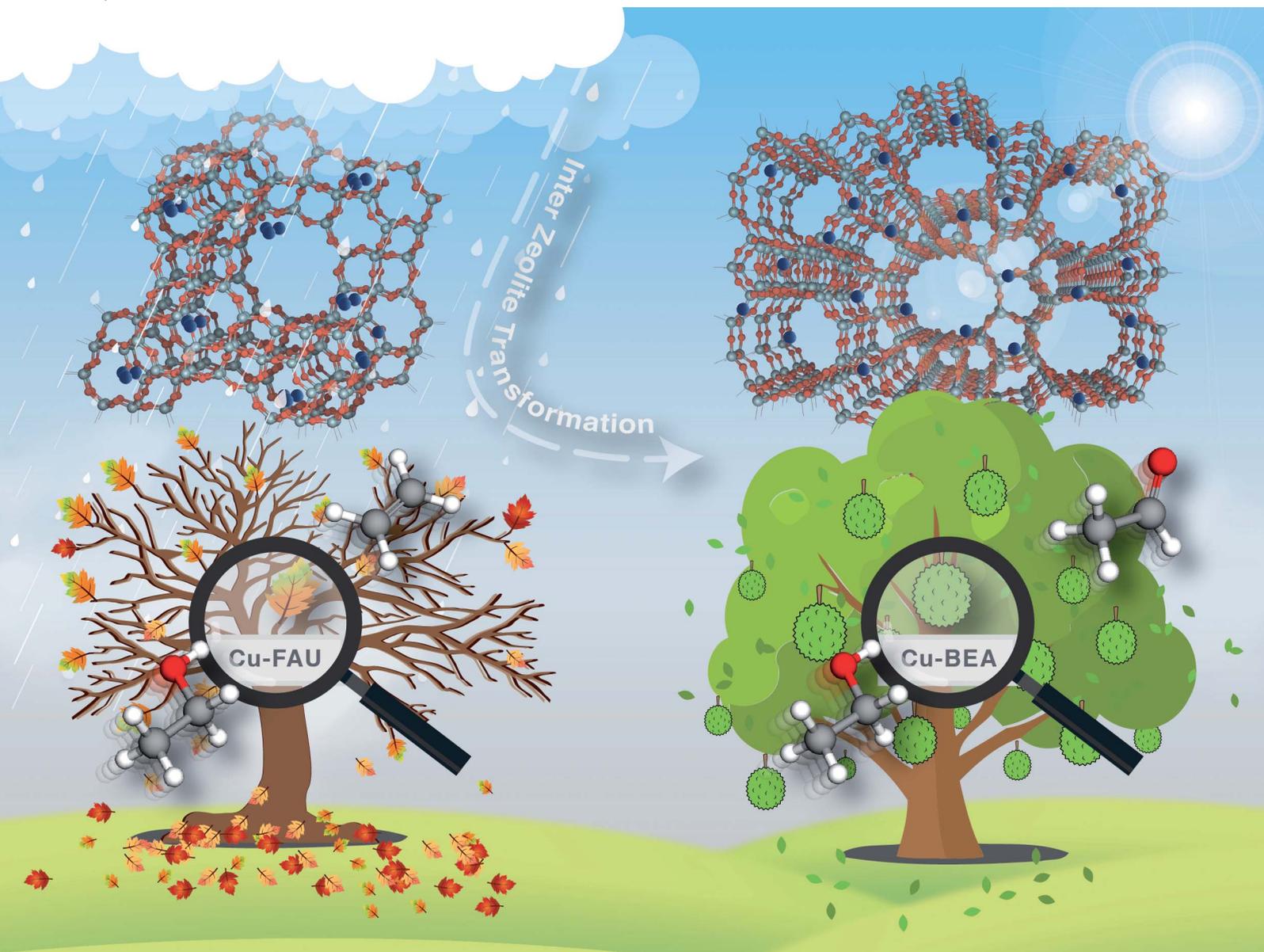


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**PAPER**

Chularat Wattanakit *et al.*  
Engineering ultrafine Cu nanoparticles supported on zeolites  
*via* solvent-free inter-zeolite transformation for bioethanol  
dehydrogenation