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CHEMBIOCHEM

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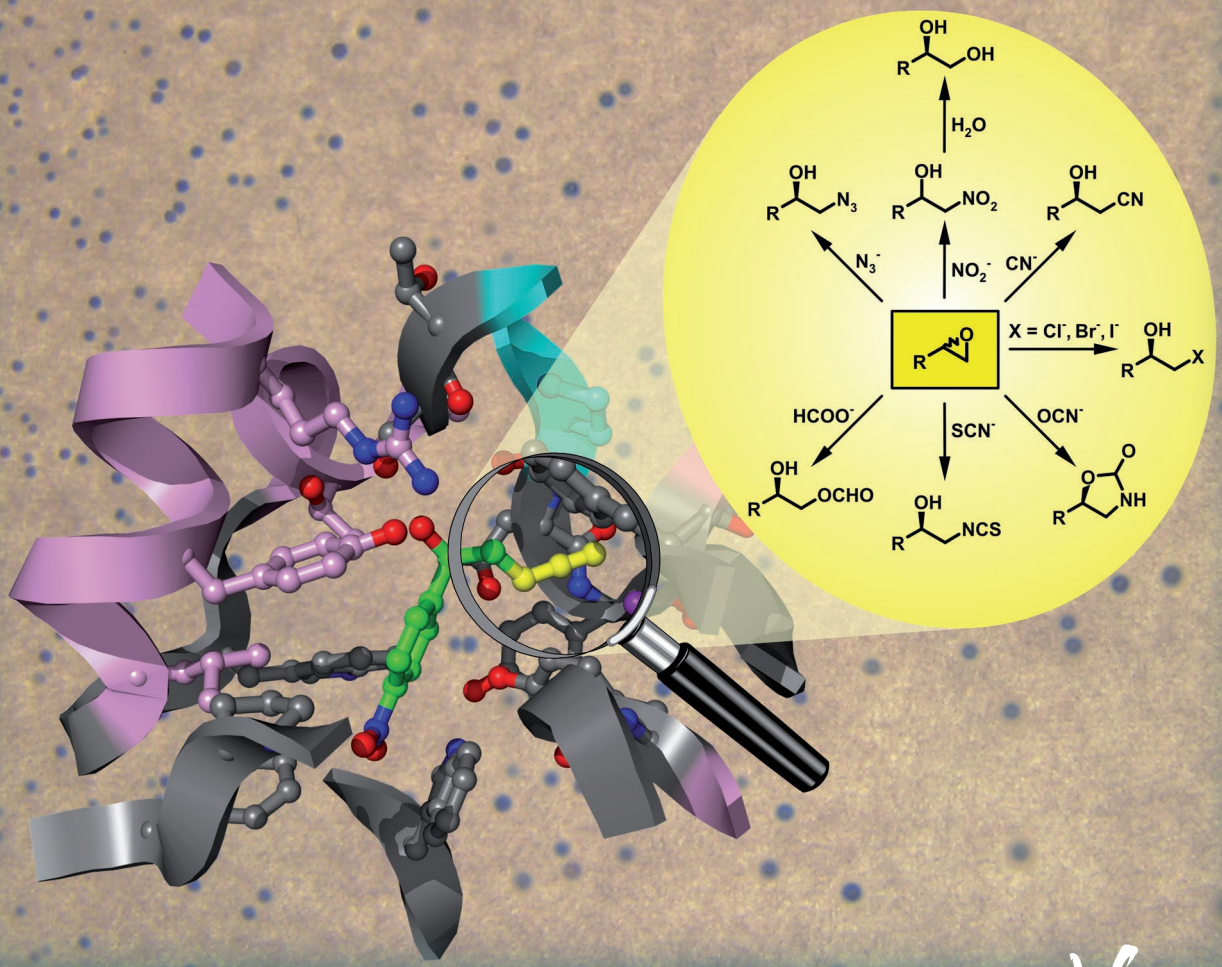
Catalytic Promiscuity of Halohydrin Dehalogenase



7/2008

Chemistry & Life Sciences

Highlight: Design of Lectin Mimetics (M. Mazik)

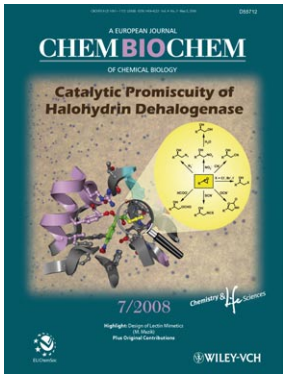
Plus Original Contributions

EUChemSoc

WILEY-VCH

Cover Picture

Ghannia Hasnaoui-Dijoux, Maja Majerić Elenkov, Jeffrey H. Lutje Spelberg, Bernhard Hauer, and Dick B. Janssen*



The cover picture shows a close-up of the promiscuous halide binding site of halohydrin dehalogenase, an enzyme that catalyzes enantioselective epoxide ring opening with a diversity of anionic nucleophiles. Also shown are conversions that give good yields of building blocks for a range of useful, highly enantioenriched, chiral compounds, including cyanoalcohols, nitroalcohols, and oxazolidinones. These have potential applications in agrochemicals, pharmaceuticals, and polymer chemistry. In the background, recombinant dehalogenase-producing *E. coli* colonies appear violet on an eosin–methylene blue indicator plate when exposed to a chloroalcohol substrate. For more information, see the communication by D. B. Janssen et al. on p. 1048 ff. of this issue.