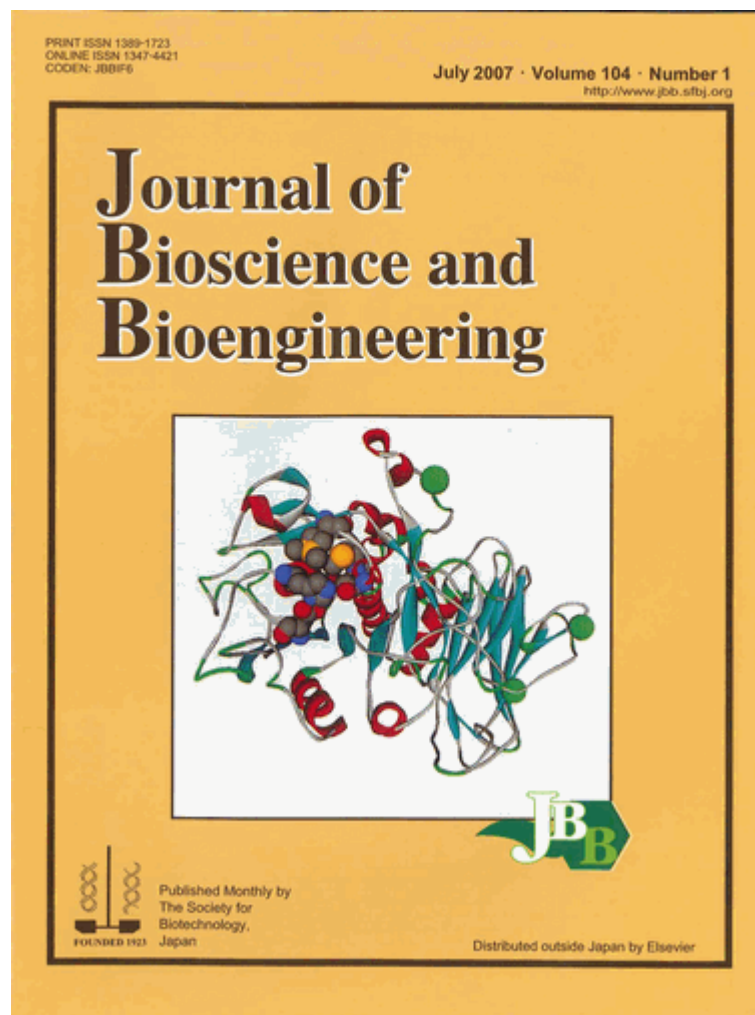


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The crystal structure of a chemical oxidant-resistant alkaline phosphatase (KP-43).

α -helices and β -strands are shown as red and blue ribbons, respectively, while calcium ions are represented by green spheres. KP-43 has been produced on an industrial-scale and can be incorporated into laundry detergents. Although the detailed mechanism is still puzzling, a possible mechanism underlying the oxidative stability of KP-43 would be the slow oxidation of Met256 in the vicinity of the catalytic Ser255.

Related article: Saeki, K., Ozaki, K., Kobayashi, T., and Ito, S., "Detergent alkaline proteases: enzymatic properties, genes, and crystal structures", *J. Biosci. Bioeng.*, vol. 103, 501-508 (2007).

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