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ACTION

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(54) Title: METHOD FOR PRODUCING METHACRYLIC ACID AND ACRYLIC ACID WITH A COMBINATION OF ENZYME CATALYSTS

(57) Abstract: The invention provides a process for the hydrolysis of acrylonitrile to acrylic acid, and for the hydrolysis of methacrylonitrile to methacrylic acid, in high yield and at high concentration with high specificity. Acrylonitrile or methacrylonitrile is hydrolyzed in a suitable aqueous reaction mixture by a catalyst characterized by a nitrile hydratase and amidase activity of *Comamonas testosteroni* 5-MGAM-4D, producing the corresponding acid. The acrylic acid or methacrylic acid is isolated as the acid or corresponding salt.