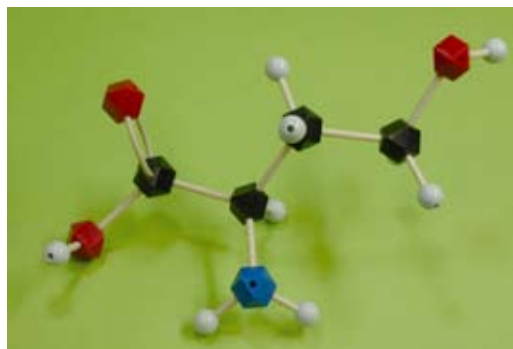


Microbial resolution of DL-homoserine for the production of D-homoserine

For the development of a practical process producing D-homoserine from DL-homoserine, microbial optical resolution was investigated. A bacterial strain 2-3 which can enantioselectively assimilate the L-enantiomer from DL-homoserine was isolated, and identified as *Arthrobacter nicotinovorans*. The strain 2-3 grew on a medium containing 5% (w/v) of DL-homoserine hydrobromide and exhausted L-enantiomer from the culture to leave D-enantiomer, which was recovered with enantiomeric excess of over 99.9%. The present method is simple and suitable for practical use.



D-Homoserine
Black, carbon atom; blue, nitrogen atom; red, oxygen atom;
light blue, hydrogen atom

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Development of an intelligent electric wheelchair equipped with an omni-directional stereo camera system

We have developed a support technology to enhance the independent mobility of disabled persons, featuring an electric wheelchair fitted with an innovative camera system “Stereo Omni-directional System”. The camera system can capture omni-directional color images and range data in real time, enabling automatic detection and avoidance of hazards in the wheelchair’s traveling environment. Furthermore, the wheelchair enables emergency stop by detecting gestures and abnormal postures of the driver.



An appearance of the intelligent electric wheelchair

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