

**RESOURCES****PATENTS****Recent patents in fermentation technology**

Patent #	Subject	Assignee	Author	Priority application date	Publication date
EP 1046706	Continuous biocatalytic conversion of an aqueous solution containing material by feeding the solution into a bioreactor containing a biocatalyst and transferring into a degassing device.	GEA Liquid Processing Scandinavia (Skanderborg, Denmark)	Andersen K, Bergin J, Lommi HO, Lynch FJ, Pajunen EJ, Viljava TT	4/21/1999	10/25/2000
US 6133019	An apparatus for containing a biocatalyst at a desired location within a liquid flow path within a gravitational field; useful in fermentation processes.	Kinetic Biosystems (Atlanta, GA)	Herman HH	12/31/1997	10/17/2000
DE 19913862	Biotransformation of a substrate with poor solubility in water in a bioreactor containing an aqueous medium; suitable for the selective biocatalyzed oxidation of terfenadine to the corresponding alcohol, which can be converted into fexofenadine.	Forschungszentrum Jülich (Jülich, Germany)	Schmitz G, Takors R, Wandrey C, Weuster-Botz D	3/26/1999	10/5/2000
EP 1041044	A process for cleaning wastewater from the food-processing industry, especially olive oil production, in which the wastewater has varying amounts of water and organic substances; comprises a biological treatment using micro-organisms, a mechanical process to separate solids and oils, and selective adsorption of phenolic components using absorption resin in an ion-exchange process.	ARGUS Umweltbiotechnologie (Berlin)	Liedecke H, Niebelschuetz H	3/31/1999	10/4/2000
US 6110713	Producing glutamic acid by culturing a biologically pure culture of ribulose-monophosphate-pathway-utilizing, auxotrophic mutant of <i>Bacillus methanolicus</i> .	Univ. Minnesota (Minneapolis, MN)	Al-Tahoo N, Bremmon C, Flickinger MC, Hanson RS, Hur W, Olson P	3/23/1993	8/29/2000
WO 200041976	A bioremediation system for treating palm oil mill effluent, including a screw press, a crude oil separator, a sludge separator, and a bioreactor to convert the sludge liquor to micro-organic biomass. The method allows the palm oil mill by-product to enter a complete food chain with the production of high-value fish protein as an end product.	Ebara Corp. (Tokyo); Ebara Eng. Singapore Pte. Ltd.	Mamoru K	1/14/1999	7/20/2000
US 6087462	Coating compositions comprising polymers containing zwitterionic monomers bearing a center of permanent positive charge, for coating separation membranes (preferably biofiltration membranes in bioreactors and fermentation systems. The coating discourages protein adsorption, rendering the surface suitable for prolonged contact with living tissues, body fluids, and protein-containing solutions.	Biocompatibles Ltd. (Farnham, UK)	Bowers RWJ, Charles SA, Jones SA, Stratford PW	5/12/1998	7/11/2000
WO 200029544	A bioreactor for cultivating microorganisms on solid medium in a contained environment, comprising stacked modules with communicating and noncommunicating channels and a mixing arrangement. The bioreactor combines all of the operations of microorganism cultivation in a controlled environment.	Biocon India (Bangalore, India)	Mazumdar K, Suryanarayan S	11/17/1998	5/25/2000

Source: Derwent Information, Alexandria, VA. \*The patents in the table are pending. The status of each application is slightly different from country to country. For further details, contact Derwent Information, 1725 Duke St., Suite 250, Alexandria, VA 22314. Tel: 1 (800) DERWENT (info@derwent.com).

