Vitamin K fermentation: Challenges and perspectives

The Vitamin K series, particularly menaquinone, have been attracting research attention, due to the potential in reducing both osteoporosis and cardiovascular diseases. To date I have investigated the various biotechnological approaches for the production of menaquinone, including types of fermentations, extraction and recovery to significantly reduce the production price. Breakthroughs in up-streaming and down-streaming the production process for menaquinone will be discussed. Recommendations will be given for areas of future research in order to improve the production process for menaquinone and reduce costs.

Biography

Aydin Berenjian is a Lecturer at the University of Waikato (New Zealand). He did BE, ME and PhD in Biochemical Engineering. After graduating from the University of Sydney (Australia), he began his career as a Post-doctoral Research Fellow and later on, in 2014 he became a Lead Researcher in the field of Bioprocess Engineering at the University of Waikato. His main research interests are: Fermentation technology including upstream and downstream processing; biofilm technology; kinetics, modeling and optimization of bioprocesses; drug biosynthesis and functional foods. He serves as the Editor of Molecular Biotechnology (Springer Science, Germany) and Associate Editor of American Journal of Biochemistry and Biotechnology (Science Publication, USA). He has published more than 50 peer-reviewed articles, and renowned 2 international patents. He has also won several prestigious Awards including IChemE and WCECS Research Awards.

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