

Your Ref:
Our Ref: PT/5237/UTM/14 (kit)

19 December 2014

UTM RAZAK School of Engineering And
Advanced Technology
UTM Kuala Lumpur, Jalan Semarak,
54100 Kuala Lumpur, Malaysia.

Attn: Dr C. Shreeshivadasan

By Email & Post

Dear Sir,

Patent Novelty Search for "Rotary Electro-Coagulator System"

1. We have conducted a patent search on the above matter to determine its patentability.
2. We enclose the related patent documents with their summaries.

2.1 US 2012186992 (A1)
Title: Electrocoagulation For Treating Liquids
Publication Date: 26 July 2012
Applicant(s): Berrak Abderrazak [CA]

A method, a system and a kit for removing colloid contaminants from a fluid by destabilization thereof with addition of kinetic energy thereto is provided, the method to overcome the energetic barrier preventing an efficient fluid-solid separation comprises injecting the colloidal fluid containing contaminants in an electrolytic system including an electrocoagulation module comprising an anode and a cathode, the anode and the cathode being adapted to be electrically connected to perform electrolysis of the fluid, providing an electric current, between the anode and the cathode, to form electro-coagulated contaminants flocs in the agitated fluid, separating the electro-coagulated flocs from the fluid, and extracting the fluid from the electrolytic system.

2.2 Separation and Purification Technology, Vol. 38, Issue 1, P. 11-41
Title: Electrochemical Technologies In Wastewater Treatment
Publication Date: 15 July 2004
Author(s): Guohua Chen

This paper reviews the development, design and applications of electrochemical technologies in water and wastewater treatment. Particular focus was given to electrodeposition, electrocoagulation (EC), electroflotation (EF) and electrooxidation. Over 300 related publications were reviewed with 221 cited or analyzed. Electrodeposition is effective in recover heavy metals from wastewater streams. It is considered as an established technology with possible further development in the improvement of space-time yield. EC has been in use for water production or wastewater treatment. It is finding more applications using either aluminum, iron or the hybrid Al/Fe electrodes. The separation of the flocculated sludge from the treated water can be accomplished by using EF. The EF technology is effective in removing colloidal particles, oil & grease, as well as



Patent, Trademark, Industrial
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Technology Transfer &
Commercialisation

Intellectual Property Strategy &
Incentives Facilitation