عنوان مقاله:

CHEMICAL-MECHANICAL CLEAR FILTRATION (CMP) OF WASTE WATER USING ELECTRO-COAGULATION METHODS AND SEMI CONDUCTIVE ELEMENTS BASED PRODUCTION

محل انتشار:

ششمین کنفرانس بین‌المللی مسائل فنی و فیزیکی در مهندسی قدرت (سال: 1389)

تعداد صفحات اصل مقاله: 6

نویسندگان:

N.M Hosseinahli - *Azarbaijan Higher Education and Research Complex, Tabriz, Iran*

M.A Hasanov - *Institute of Physics of Azerbaijan National Academy of Sciences, Baku, Azerbaijan*

خلاصه مقاله:

In this research paper, waste water purification, using Mechanical- Chemical pellucid (Clear Filtration), is being discussed. In purification process, method of using large semi conductors was used. In this method, Concentration of suspended solids (SS), Clarity degrees of turbidity (NTU) were calculated. Chemical Oxygen demand (COD) was 500milligram per liter and cupper concentration was 100 milligram per liter. Experiments have shown that it is possible to reduce concentration rate of cupper, Clear the color of waste water, and reduce COD, considerably by electrocoagulation process. Different phases of electrocoagulation process monitored. Also, Different pairs of electrodes were used in these experiences. Average sizes of particles were 100 nanometers and average size of suspended particles, were 68 to 120 nanometers. Experiments showed that Iron-Aluminum electrode pairs produce better results (These pairs are able to eliminate 99 percent of cupper pollutant, with color clarity rate of 96.5 percent. COD ratio was less than 100 milligram per liter in standard Debi) Filtered waste water material could be used in different applications.

کلمات کلیدی:

CMP- COD- NTU- Electro-Coagulation-Electrodes, Waste Water