

Ceramic Membrane

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Why in news?

- Scientific and Industrial Research Council CSIR-NEIST has developed a ceramic membrane that is able to clean toxic effluents with the aid of the potter's mixture of clay, stein dust and tea waste.
- These filters are particularly useful for petrochemical processing where organic membranes can not be used.
- It is able to remove dimethylene blue, a toxic colour and Congo red, a carcinogen, from water.
- Ceramic filters and membranes are commonly used in various industries, such as food and beverage, medicine and chemical products, waste recovery and recycling.
- Ceramic membranes can tolerate repeated washing, rough working conditions and continuous material flows.
- They can also be regenerated over many cycles and are applied to separate acidic and non-aquatic solutions.
- The membrane freshly formed is thermally stable and organic.
- The membrane used can also be regenerated without much efficiency by heating at 400 degrees for 30 minutes.