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(71) Applicants:
- **Kabushiki Kaisha Toshiba**
  Minato-ku
  Tokyo 105-8001 (JP)
- **A School Corporation Kansai University**
  Suita-shi, Osaka 564-8680 (JP)

(72) Inventors:
- **OZAKI, Tamon**
  Minato-ku
  Tokyo 105-8001 (JP)
- **IMAI, Takahiro**
  Minato-ku
  Tokyo 105-8001 (JP)
- **SAWA, Fumio**
  Minato-ku
  Tokyo 105-8001 (JP)
- **MURAYAMA, Kiyoko**
  Minato-ku
  Tokyo 105-8001 (JP)
- **KOMIYA, Gen**
  Minato-ku
  Tokyo 105-8001 (JP)
- **SHIMIZU, Toshio**
  Minato-ku
  Tokyo 105-8001 (JP)
- **TODO, Yoko**
  Minato-ku
  Tokyo 105-8001 (JP)
- **HOMMA, Mitsutaka**
  Minato-ku
  Tokyo 105-8001 (JP)
- **SAKAGUCHI, Osamu**
  Minato-ku
  Tokyo 105-8001 (JP)
- **OCHI. Mitsukazu**
  Suita-chi
  Osaka 564-8680 (JP)
- **KURAYA, Miyuki**
  Suita-chi
  Osaka 564-8680 (JP)

(74) Representative: **HOFFMANN EITLE**
Patent- und Rechtsanwälte
Arabellastraße 4
81925 München (DE)

(54) **PROCESS FOR PRODUCING RESIN COMPOSITION WITH PARTIAL-DISCHARGE RESISTANCE, RESIN COMPOSITION WITH PARTIAL-DISCHARGE RESISTANCE, AND INSULATING MATERIAL WITH PARTIAL-DISCHARGE RESISTANCE**

(57) Fabricating a partial discharge resistant resin composite with an excellent partial discharge resistance with a small density, in a simplified manner. Using an ion exchange treatment for intercalating an organic compound between layers of a layer clay mineral thereby providing the layer clay mineral with a swellability to at least one of a polar solvent and a non-polar solvent, having the layer clay mineral as provided with a swellability swollen in a swelling solvent comprising the polar solvent or the non-polar solvent, followed by mixing an epoxy

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resin and kneading, making a removal of the swelling solvent from an obtained mixture including the swelling solvent, the layer clay mineral, and the epoxy resin, adding a hardener for epoxy resin to the mixture including the layer clay mineral and the epoxy resin, and mixing the mixture. In a partial discharge resistant insulation material comprising a hardened material of a partial discharge resistant resin composite thus fabricated, there is a network of molecular chains (1) of the epoxy resin constituting a cross-linked structure, with a system of inorganic nanoparticles (2) comprising the layer clay mineral and precisely and evenly dispersed therein.

FIG. 1