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ASAKAWA et al.(10) **Pub. No.: US 2020/0401045 A1**(43) **Pub. Date: Dec. 24, 2020**(54) **ACTIVE-RAY-SENSITIVE OR
RADIATION-SENSITIVE RESIN
COMPOSITION, RESIST FILM, PATTERN
FORMATION METHOD, AND METHOD FOR
MANUFACTURING ELECTRONIC DEVICE****C08F 220/18** (2006.01)**C08F 220/28** (2006.01)(52) **U.S. Cl.**CPC **G03F 7/039** (2013.01); **G03F 7/0045**
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(57)

ABSTRACT

An object of the present invention is to provide an actinic ray-sensitive or radiation-sensitive resin composition which is capable of forming a pattern having an excellent pattern line width roughness (LWR). In addition, another object of the present invention is to provide:

a resist film, a pattern forming method, and a method for manufacturing an electronic device, each of which uses the actinic ray-sensitive or radiation-sensitive resin composition.

The actinic ray-sensitive or radiation-sensitive resin composition of the present invention includes a resin including a repeating unit derived from a monomer having a salt structure and a repeating unit having a group whose polarity increases through decomposition by the action of an acid,

the salt structure consists of an anionic structure moiety and an actinic ray-sensitive decomposable or radiation-sensitive decomposable cationic structure moiety, and

a pKa of a monomer obtained by substituting the cationic structure moiety in the salt structure with a hydrogen atom is -0.80 or more.

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