COLLECTION OF NANOPARTICLES USING NOVEL FILTER PROCESS BY EDM

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Present study shows a design for synthesis of metal Nanoparticles by Di-sink EDM as collection of debris by novel filter system.

Product Background

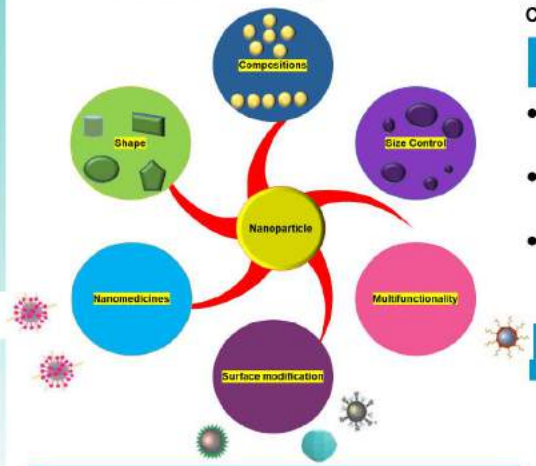
- Synthesis of NPs used Toxic Chemical process.
- High time consuming
- Costly
- Skilled manpower required
- Still EDM not used for NPs Generation

Novelty/ Inventiveness

- Present process filters overall dielectric.
- We design prototype Filtration process that able to collect 5 µm – above particles.
- EDM will be used for nano particle synthesis.

Benefits/ Applicability

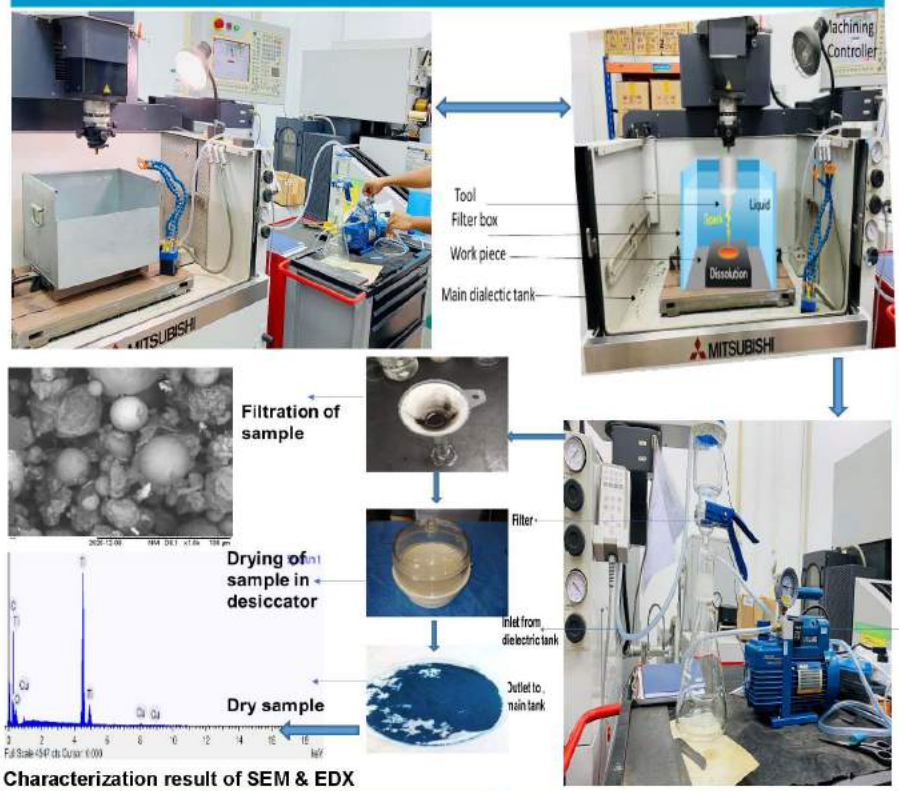
- Size control and shape of nanoparticles can be developed.
- Multifunctionality of nanoparticles.
- Useful in the Coating.



Status of Innovation

- Product Development/Market Readiness
- TRL Level- under development
- Under prototype.
- Under functioning

Product Image and Product Characteristics/ Result



Characterization result of SEM & EDX

Marketability&Commercialisation

- Nanoparticles can be generated by the simple process with low cost.
- Feasibility of production in large scale.
- Skilled person is not required for the nanoparticle synthesis.

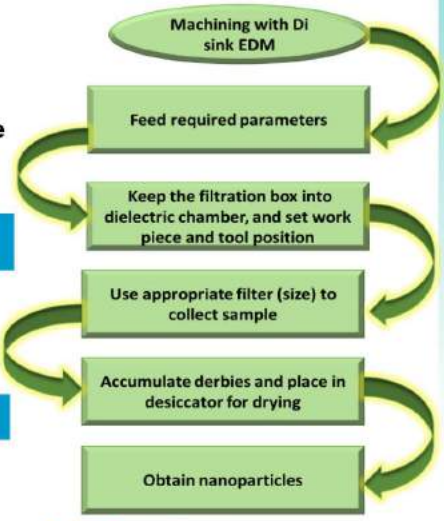
Environmental Impact

- Nanoparticles developed without use of harmful chemicals.
- Ecofriendly process.

Cost Analysis

- Cost of The Product: 200 RM
- Price Comparison with Available Products in Market: Not available

State of the flow of working



Collaboration

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