

## Technology Offer Form

<b>*Title:</b> Synthesis of Phase pure Titanium dioxide Nanoparticles	<b>*Author / Designation / Company:</b>
<b>*Creation Date:</b>  <b>Technology Type:</b> Process / Design / Material / Software / Others (specify) - <b>Process</b>	<b>*Desired Mode of Technology Offer: Technology (Know how) Transfer</b>  Technology (Knowhow) Transfer / Production License / OEM Manufacturing / Joint Venture / Others

**Promotional Description :( attach image if available)**

A novel, economic and eco-friendly process for bulk synthesis of Phase pure Titanium dioxide nanoparticles.

**Technology Benefits Summary, Differentiation & Uniqueness:**

Titanium dioxide (TiO<sub>2</sub>) is the most widely used white pigment, for example in paints. It has high brightness and a very high refractive index. TiO<sub>2</sub> is also an effective opacifier, making substances more opaque.

Clean, safe and eco-friendly process, environmentally much more benign compared to existing commercial process.

Process is feasible at commercial scale

**Application & Potential Advantages:**

- Titanium dioxide (TiO<sub>2</sub>) is the most widely used white pigment, for example in paints.
- It has high brightness and a very high refractive index.
- TiO<sub>2</sub> is also an effective opacifier, making substances more opaque.

**Development Stage & Development Status Summary:**

TRL-25g Titania nanoparticles at bench scale

**Intellectual Property (if any) Please give Patent Summary:**

Indian Patent filed

**Technical Details:**

1. The present process provides an economic, eco-friendly; easy and simple process for bulk synthesis of crystalline Rutile or Anatase phase TiO<sub>2</sub> nanoparticles. involves low temperature.
2. Raw Materials to be Utilized- TiCl<sub>4</sub>, polyethylene glycol (PEG), NH<sub>4</sub>OH solution
3. Major Plant Equipment and Machinery Required - Common equipments

**Collaboration Description, Terms & Restrictions & Seller Support (technical / training / documentation etc.):**

Please complete this form and return it to Ms. J Sreedevi by email at [tech-mktg@steinbeisindia.com](mailto:tech-mktg@steinbeisindia.com)

Please use more sheets if required. Please give brief company details separately, which shall be shared with the client at appropriate stage of negotiations.

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