

Conclusion

- Absorbent ceramics for function such as light weight ,Tailored Thermal Insulating, low diffusivity were produced by the putrefaction of Potato Starch
- Towering recital such as High Porosity (68%),Squat Thermal conductivity (4.8W/mk), Absorbent Spinel are formed .
- Diffraction replica of absorbent MgO bordered via capacity of aluminum nitrate clarification handling. Exceeding all after most primitive clarification a minute peaks of spinel were flaw which appoint that the MgO counter in the hole side of alumina to outline spinel.
- Refusal alumina was no distinguish in any sample, which were sign of with the intention of the initially impetuous alumina completely retort with MgO to perform spinel.
- During indulgence than five illumination treatments hefty quantity of spinel were twisted .The quotient of spinel restoration were deliberate by persuade gain modus operandi according to the compound reaction.
- SEM micrograph of absorbent MgO shows the external surface of the pellets in ashen (White) orb imperfection broaden on the facade point near the starch, succession forth extent of swelling temperature.
- SEM micrograph of absorbent MgO replica with leading explanation treatment s h o w s white façade of the MgO platelets together with this hasty spinel.
- SEM micrograph of a absorbent, these proposition that the alumina hole were utterly sheltered among the hasty Spinel.

- Some pores were greater than 1 micrometer where as some less than 1 micrometer .Some pores were also found in nano range. Comparable to the disintegration of unprocessed substance this modus operandi is based on stimulate pores from side to side, that extent lessening chase the decarbonation reaction.
- It was revealed that kindred were in a good agreement with the equations used for the portrayal of time responses of tenderness for the pulse input of a bounding heat.
- In case of absorbent MgO when curved in with aluminium nitrate solution ,Bulk density vs number of solution treatment are increase and porosity are decrease.
- Develop and Characterize the high strength and high porosity Porous Spinel and Zircon spinel.
- Adsorption and De adsorption curve gives actual porosity in a material. Whilst adsorption and desorption bend were summon give explicit in order concerning precise or genuine porosity in a sample from the figure given below.
 - A)** Adsorbtion curve meets De Adsorbtion curve at 68% Porosity for PMSO
 - B)** Adsorbtion curve meets De Adsorbtion curve at 64% Porosity for PMS1
 - C)** Adsorbtion curve meets De Adsorbtion curve at 58% Porosity for PMS2
 - D)** Adsorbtion curve meets De Adsorbtion curve at 54% Porosity for PMS3
 - E)** Adsorbtion curve meets De Adsorbtion curve at 52% Porosity for PMS4
 - F)** Adsorbtion curve meets De Adsorbtion curve at 48% Porosity for PMS5
- Time dependency of the slope temperature response for the Dirac thermal pulse for porous media shows high diffusivity Characteristics.
- Failure analysis of porous sample are maximum for thermal shock measurement.
- Thermal shock behaviour of Porous sample calculated by quenching cycle.

- PMSO (Porous MgO with no Solution Treatment) Shows maximum permeability , low density ,low thermal properties (thermal conductivity, pulse response etc).
- High Porous material (PMSO) were low Corrosion (Percentage) where as PMS5 was achieved a maximum percentage of corrosion.
- No any toxic volatile material were generated by putrefaction of potato starch,these process were simple and more accurate.

Future work ;

1. Decreasing of dimension of macro pores with tale modus operandi differentiate the micropore and generating the nano pores.
2. Enlarged the magnitude of pores or controlling the size of pores by different mechanism.
3. Synthesis and development of of porous mixed materials together with ceramics, metals, and organic materials
4. Porous Ceramics used for Bio medical operation/ Implant.
5. Porous hybrid glass ,Porous metal matrix composite ,Porous gas sensor etc.