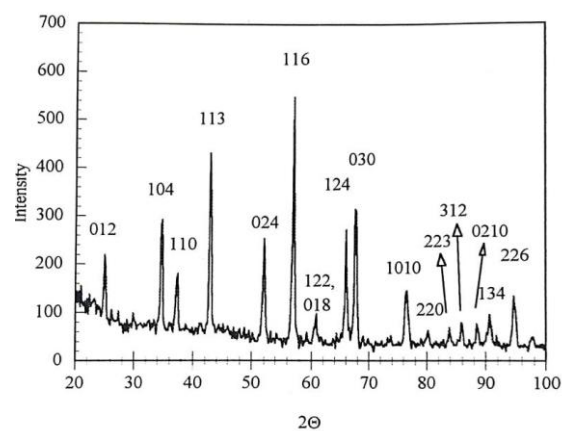
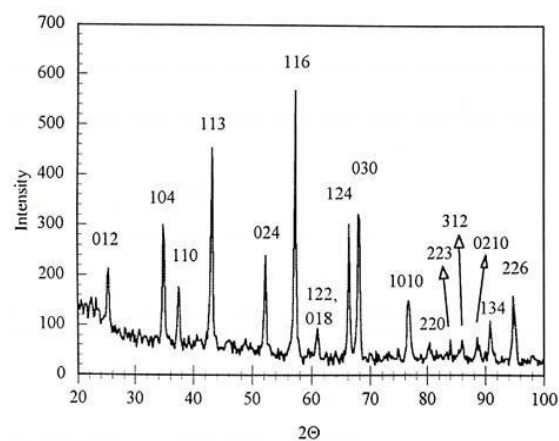


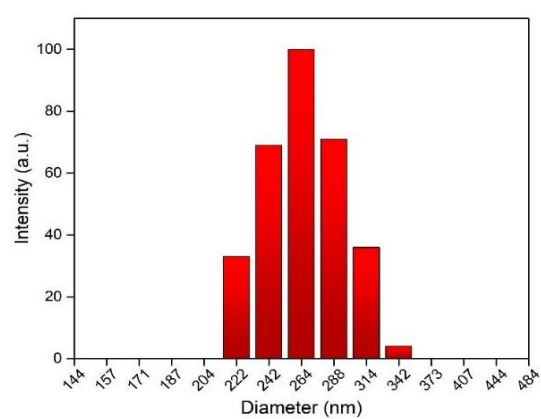
## Supplementary Information



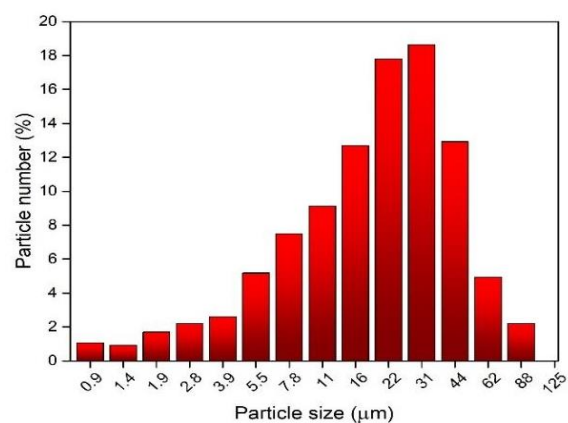
**Figure S1.** X-Ray Diffraction pattern of AKP - 50 alumina with assigned plane indices (hkl).



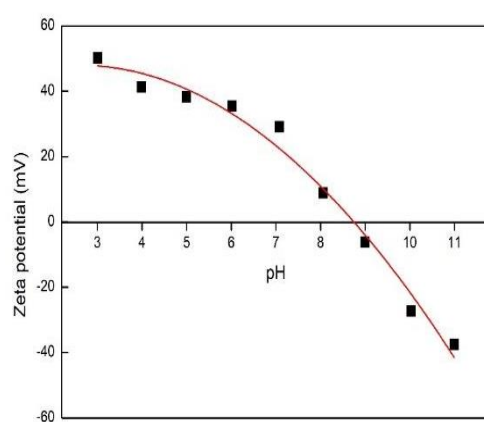
**Figure S2.** X-Ray Diffraction pattern of Linde alumina with assigned plane indices (hkl).



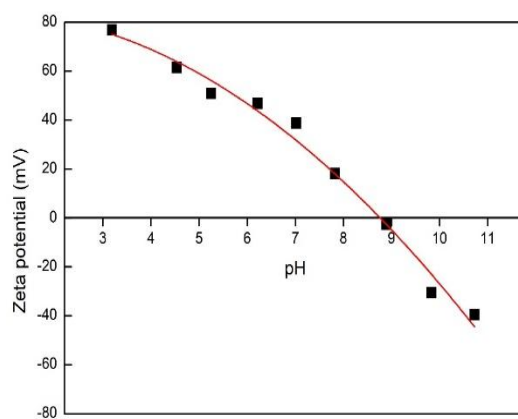
**Figure S3.** Particle size distribution of Linde A alumina determined by light scattering.



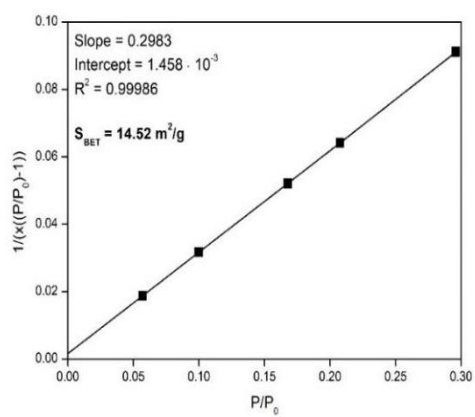
**Figure S4.** Particle size distribution of AKP - 50 alumina measured using Microtrac System.



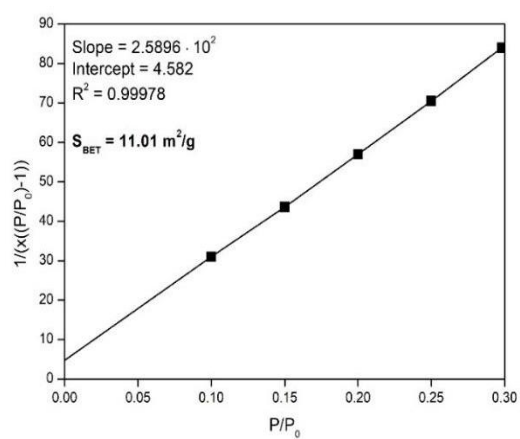
**Figure S5.** Zeta potential of Linde A alumina in  $0.03 \text{ mol dm}^{-3}$  NaCl solution as the background electrolyte at different pH values.



**Figure S6.** Zeta potential of AKP-50 alumina in  $0.03 \text{ mol dm}^{-3}$  NaCl solution as the background electrolyte at different pH values.



**Figure S7.** The specific surface area of Linde A alumina by nitrogen adsorption (B.E.T. method).



**Figure S8.** The specific surface area of AKP - 50 by nitrogen adsorption (B.E.T. method).