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[\[PDF \(190K\)\]](#) [\[References\]](#)**Electrophoretic Deposition Behavior of Ceria-stabilized Zirconia/Alumina Powder**

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Abstract:

The aim of this study was to evaluate the electrophoretic deposition (EPD) behavior of ceria-stabilized zirconia/alumina (Ce-TZP/Al₂O₃) granulated powder. Two types of slurry with powder-to-solvent ratios of 10 wt% and 20 wt% were used. Zeta potential of the slurries was measured using a spectrometer at different pH levels. Then, EPD was performed to measure the weight of the deposited particles at varying pH levels and at two voltages (50 V and 100 V). The isoelectric point of Ce-TZP/Al₂O₃ mixed powder was approximately at pH 8.5. When EPD was performed, deposition of ceramic particles was typically observed in the range of pH 3 to pH 7, with the greatest deposition found at around pH 7. Moreover, the deposition of ceramic particles increased with increase in slurry concentration and voltage.

Key words:[Electrophoretic deposition](#), [Zirconia](#), [Zeta potential](#)[\[PDF \(190K\)\]](#) [\[References\]](#)

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