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4.	Area of Technology (e.g. materials, health care, etc.): Flame Synthesis of Carbon Nanotubes
5.	Web link, if any: <a href="http://www.ijser.org/ResearchPaperPublishing_November2012.aspx">http://www.ijser.org/ResearchPaperPublishing_November2012.aspx</a>
6.	Description in 500 words: A statistical designed experimental approach was followed to investigate the growth of carbon nanotubes structures utilizing domestic Liquefied Petroleum Gas (IS - 4576) as the fuel. LPG flow rate, C <sub>2</sub> H <sub>4</sub> flow rate, and temperature were varied to generate different flame conditions based on varying one factor at a time (OFAT) approach. 16 experiments were conducted. The 16 samples of soot with different flame conditions were collected on the surface of a substrate. The surface temperature were analyzed by Analysis of variance (ANOVA) to ensure that the experimental conditions were optimized. TEM images showed the growth of well aligned single walled carbon nanotubes with uniform length. In the present study the parametric range for producing the single walled carbon - nanotubes was determined.
7.	Keywords: Flame synthesis, carbon nanotubes, pyrolysis, DOE, LPG, Single walled carbon nanotubes