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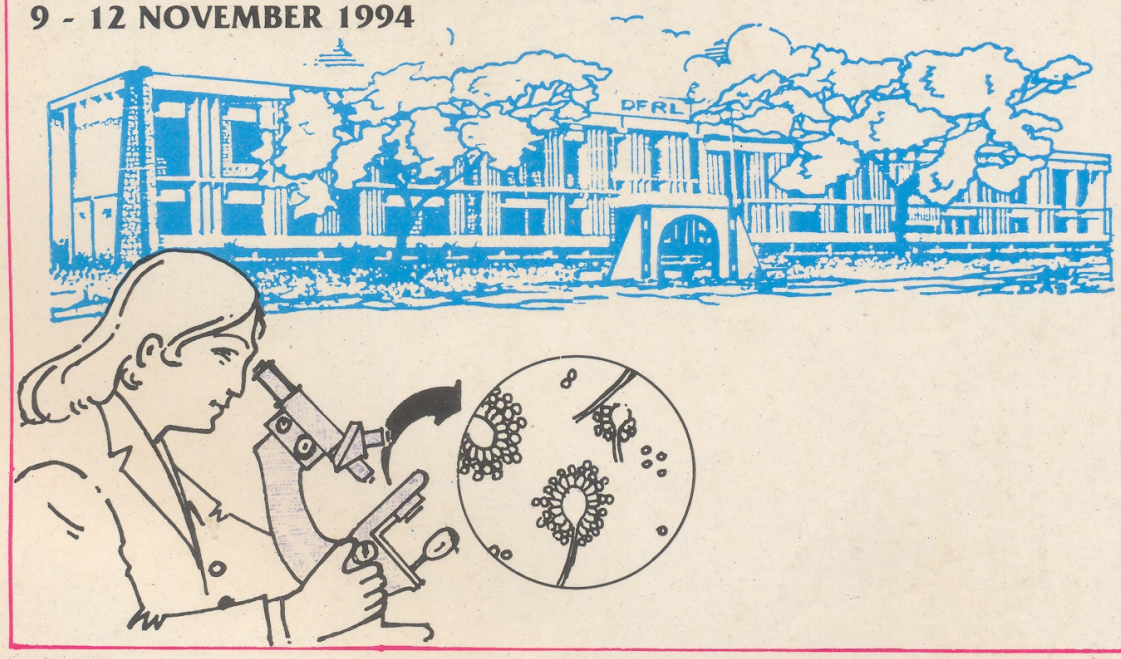

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A *PSEUDOMONAS STUTZERI* STRAIN THAT DEGRADES PHENOL THROUGH ORTHO-PATHWAY

P.Y. ANEEZ AHAMAD AND A.A.M. KUNHI
Microbiology & Bio-engineering,
Central Food Technological Research Institute,
Mysore - 570 013.

Phenolic compounds are environmental pollutants originating from coal and coke gasification plants, petroleum refineries etc. A number of microorganisms including pseudomonads capable of degrading phenol have been reported. Generally, strains of *Pseudomonas* degrade phenol through meta-pathway. Here we report a *Pseudomonas stutzeri* SPC2 that degrades phenol via ortho-cleavage pathway up to a maximum level of 500 ppm as the sole source of carbon and energy. Rothera's test indicated the ortho-mode of ring cleavage of catechol. The cell extracts showed high levels of catechol 1, 2-dioxygenase activity and no catechol 1-2,3-dioxygenase activity. Methyl aromatic compounds such as methyl catechols and cresols which are generally degraded through meta-pathway were not degraded by this strain. A resident plasmid isolated from this strain was transferred to *E. coli* DH5 strain and the transformant did not show the ability to degrade phenol, but showed the parental trait of resistance to ampicillin and carbenicillin.