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Structural Features of the Radicals Leached out of a Plasma-Driven Ultrathin Film in Molecular Weight Terms.

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Structural features of the radicals leached out of a plasma-driven ultrathin film in molecular weight terms were explored based on the permeability of such radicals to initiate the aqueous solution-polymerization of acrylic acid on the specially designed experiment. It was found such radicals are of high molecular weight and are distributed over a wide range of molecular weight.

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Sexual Co-Flocculation and Asexual Self-Flocculation of Heterothallic Fission-Yeast Cells (*Schizosaccharomyces pombe*).

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Flocculation of fission-yeast cells is mediated by surface-borne protein. Any aspect of active secretion of protein by yeasts should bear investigation, considering the current, high interest in transforming yeast, by recombinant DNA technics, to secrete specific desirable proteins. This report shows the followings. Culturing conditions have been found that engender flocculation of strains 975h⁺ and 972h⁻ of the fission yeast *Schizosaccharomyces pombe* Lindner. Both strains separately exhibit asexual self-flocculation and together, sexual co-flocculation. Flocculation is glucose repressible, but that repression is leaky, because self-flocculation can occur during the late logarithmic phase of growth before either of the C or N sources are depleted.

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Mutagenicity of *N*-Nitrosodiethanolamine in the *Salmonella*/Microsome Test.

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Mutagenicity of a commercially available *N*-nitrosodiethanolamine (NDELA) and purified NDELA was examined. Purified NDELA was positive in the presence of liver activation system, but the mutagenicity was completely lost when dimethyl sulfoxide (DMSO) was used as a solvent. In contrast, the commercial NDELA which was chemically of 93.8% purity showed positive mutagenicity without metabolic activation, and the liver activation system and DMSO had no effect on the direct mutagenic activity. These results indicate that an apparent discrepancy among previous findings of several investigators with the mutagenic response of NDELA might be due to an impurity in NDELA samples and the solvent, DMSO. Consequently, we conclude that NDELA which is carcinogenic to rats and hamsters is mutagenic in the presence of either rat- or hamster-liver S9.