

RESEARCH NOTES

利用胶质气体泡沫分离细微颗粒

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摘要 This paper presents a method of separation of fine particles, of the order of a few microns or less, from aqueous media by flotation using colloidal gasaphrons (CGAs) generated in aqueous solutions. More than 150 experiments were conducted to study the effects of surfactant type, surfactant concentration, CGAs flow rate, and particle concentration on the removal efficiency (fine particles of polystyrene were used as a target compound). The results indicate that CGAs, generated from cationic surfactant of hexdecyltrimethyl ammonium bromide (HTAB) and anionic surfactant of sodium dodecylbenzene sulfonate (SDBS), are an effective method for the separation of fine particles of polystyrene from wastewater. The flotation yields are higher than 97%.

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Separation of Fine Particles by Using Colloidal Gas Aphrons

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Abstract This paper presents a method of separation of fine particles, of the order of a few microns or less, from aqueous media by flotation using colloidal gasaphrons (CGAs) generated in aqueous solutions. More than 150 experiments were conducted to study the effects of surfactant type, surfactant concentration, CGAs flow rate, and particle concentration on the removal efficiency (fine particles of polystyrene were used as a target compound). The results indicate that CGAs, generated from cationic surfactant of hexdecyltrimethyl ammonium bromide (HTAB) and anionic surfactant of sodium dodecylbenzene sulfonate (SDBS), are an effective method for the separation of fine particles of polystyrene from wastewater. The flotation yields are higher than 97%.

Key words [separation](#); [colloidal gas aphrons](#); [flotation](#); [surfactant](#)

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