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**(54) Title (EN):** MACROCARRIERS FOR CELL GROWTH IN BIOREACTORS

**(54) Title (FR):** MACROSUPPORTS POUR LA CROISSANCE CELLULAIRE DANS DES BIORÉACTEURS

**(57) Abstract:**

**(EN):** Macrocarriers with flat surface areas which can be easily suspended in liquid using low power input will improve cell attachment and growth in bioreactors. Such macrocarriers can be consistently manufactured to exact size specifications, which can significantly reduce the risk of contamination by small size particulates. The macrocarriers may be flat discs or squares with central bumps on each face to prevent stacking. The macrocarriers may also have outward curved wings from two or four sides to facilitate distribution in moving solution.

**(FR):** Macrosupports ayant des surfaces plates et pouvant être facilement mis en suspension dans un liquide à l'aide d'une entrée de faible puissance afin d'améliorer la fixation et la croissance de cellules dans des bioréacteurs. De tels macrosupports peuvent être fabriqués de manière régulière selon des spécifications de taille exactes, ce qui peut réduire de manière significative le risque de contamination par des particules de petite taille. Les macrosupports peuvent être des disques plats ou des carrés munis de protubérances centrales sur chaque face pour empêcher l'empilement. Les macrosupports peuvent également avoir des ailes incurvées vers l'extérieur à partir de deux ou quatre côtés pour faciliter la distribution dans une solution en mouvement.

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