

Title (en)  
CHEMICAL DROPLET REACTOR.

Title (de)  
CHEMISCHER REAKTOR FÜR TROPFENFÖRMIG ZUGEFÜHRTE PROBEN.

Title (fr)  
REACTEUR CHIMIQUE A GOUTTELETTES.

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Application  
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Abstract (en)  
[origin: GB2097692A] The invention is a method of combining chemical reagents and comprises the steps of: 1) Dispensing the reagents into a conduit system in the form of discrete volumes or droplets separated from each other by an inert immiscible liquid, and 2) Moving the inert liquid and discrete droplets in such a manner that predetermined discrete volumes coalesce with each other, thereby combining the reagents. The preferred apparatus for carrying out the method comprises a plastic block (2) with indentations (3) which is clamped against a glass plate (4) forming closed conduits which are connected to reservoirs of light mineral oil, or silicon oil, by thin tubing (9) and valves (10). All the conduits are initially filled with the oil, then the second and fourth tubes are used to introduce two reagents, which are separated into two smaller volumes at the 'T' junctions then these smaller volumes are merged at the 'Y' junction by withdrawing oil from the center conduit. <IMAGE>

Abstract (fr)  
Méthode et appareil pour combiner des réactifs chimiques, le procédé comprenant 1. la distribution des réactifs dans un système de conduits sous la forme de gouttelettes ou volumes isolés (5, 15, 21, 22, 36) séparés les uns des autres par un liquide inerte non miscible (1) et 2. le changement de l'écoulement du liquide inerte non miscible à l'intérieur du système de conduits dans un ordre précis de telle façon que des volumes isolés prédéterminés s'associent les uns avec les autres, combinant de la sorte les réactifs, et l'appareil étant formé en maintenant deux plaques (42, 44) en contact face à face, où une plaque ou les deux possèdent une série d'indentations (43) sur la surface à accoupler, formant ainsi les conduits pour les combinaisons de réactifs.

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