

Title:

Laminar Mixing in “Split-And-Recombine” (SAR) Static Mixers

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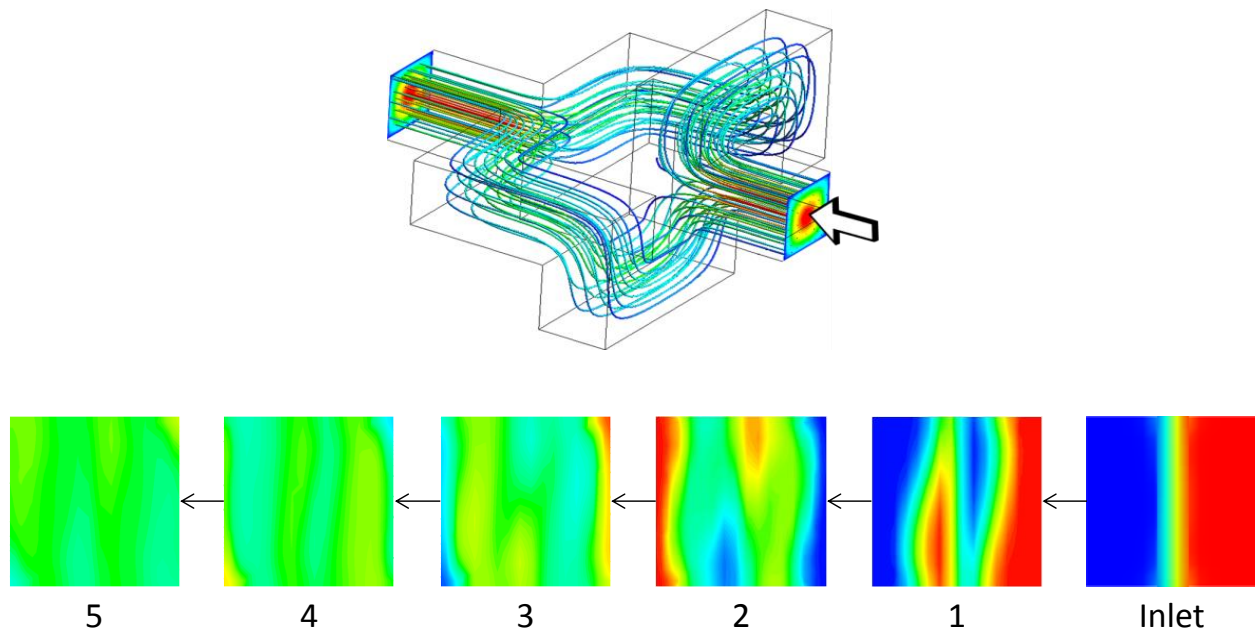
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Short Description:

Laminar mixing at low Reynolds numbers is important for many engineering applications where turbulence cannot be used or generated. This is a common issue for instance in pharmaceutical, cosmetic, and biological applications. This challenge leads to the development and optimization of the so-called “Split And Recombine” (SAR) static mixers. This type of mixers consists of a network of separated and then recombined channels in which several fluids are introduced separately and mixed by a multi-lamination process. This SAR topology performs a series of baker’s transforms on the concentration profile.



The mixing process in a SAR static mixer configuration undergoing the successive baker’s transforms on the concentration profile