



Figure 1.12 Approaches to decoupling nucleation and growth in continuous crystallization. Deconstructing continuous crystallization: continuous nucleation unit (nucleator) for continuous production of seeding suspensions followed by continuous growth unit for continuous seeded crystallization. (a) typical (unseeded) continuous crystallizer configuration. (b) typical seeded continuous crystallizer configuration. (c) a series configuration with a single solution feed; the first unit (nucleator) is dedicated to obtaining a continuous seeding suspension stream which is fed into the second unit to perform seeded crystallization. (d) Continuous seeded crystallization (growth unit) where the seed crystal suspension is generated in a dedicated continuous nucleation unit (nucleator) which may have an independent feed and/or a recycle from the growth unit.