

Figure 3 Microstructural evolution in a spinodally decomposing binary system of composition of $c = 0.25$ (inside the spinodal). (a) $t = 1000$, (b) $t = 2000$, (c) $t = 5000$ and (d) $t = 10000$.

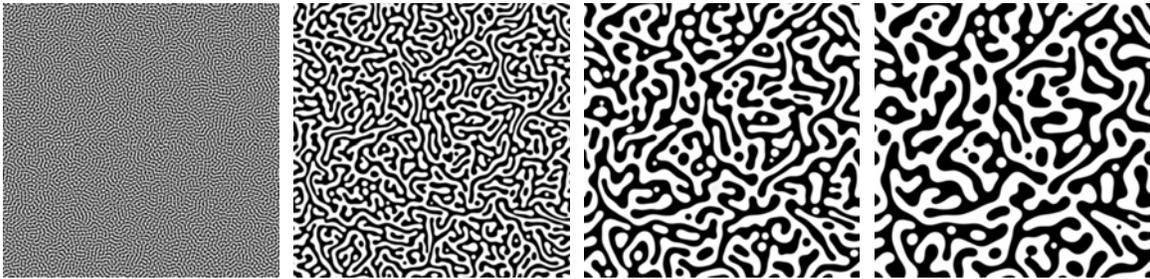


Figure 4 Microstructural evolution in a spinodally decomposing binary system of composition of $c = 0.5$ (a) $t = 100$, (b) $t = 1000$, (c) $t = 5000$ and (d) $t = 10000$.

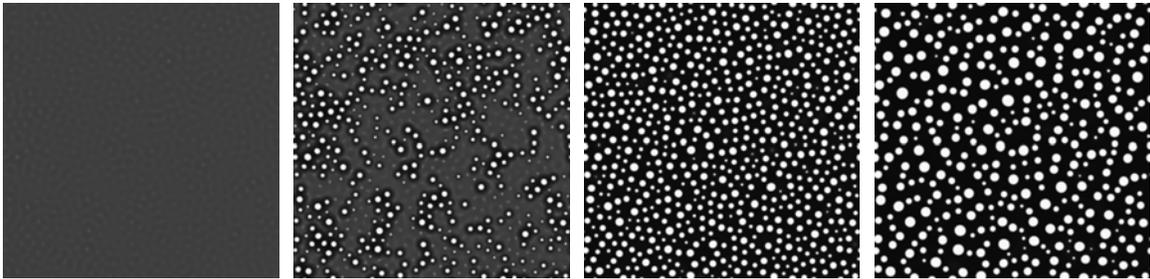


Figure 5 Microstructural evolution in a spinodally decomposing binary system of composition of $c = 0.25$ in presence of isotropic elastic field. (a) $t = 3500$, (b) $t = 4000$, (c) $t = 5000$ and (d) $t = 10000$.

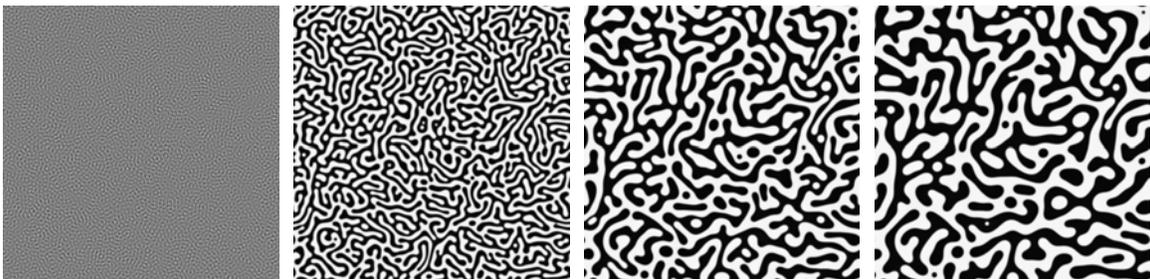


Figure 6 Microstructural evolution in a spinodally decomposing binary system of composition of $c = 0.5$ in presence of isotropic elastic field. (a) $t = 100$, (b) $t = 1000$, (c) $t = 5000$ and (d) $t = 10000$.

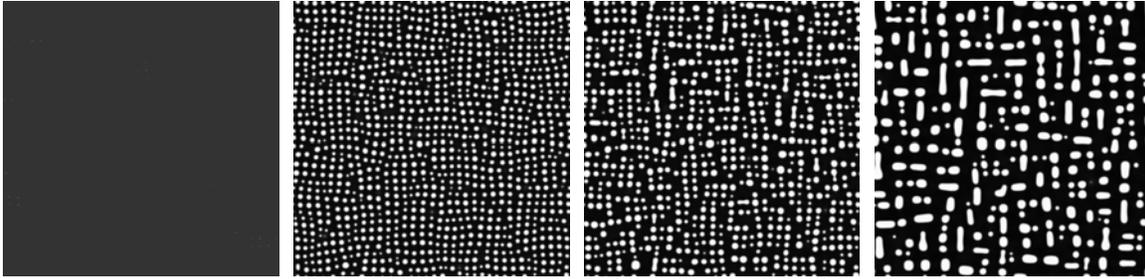


Figure 7 Microstructural evolution in a spinodally decomposing binary system of composition of $c = 0.25$ in presence of cubic elastic field. (a) $t = 2000$, (b) $t = 3000$, (c) $t = 5000$ and (d) $t = 10000$.

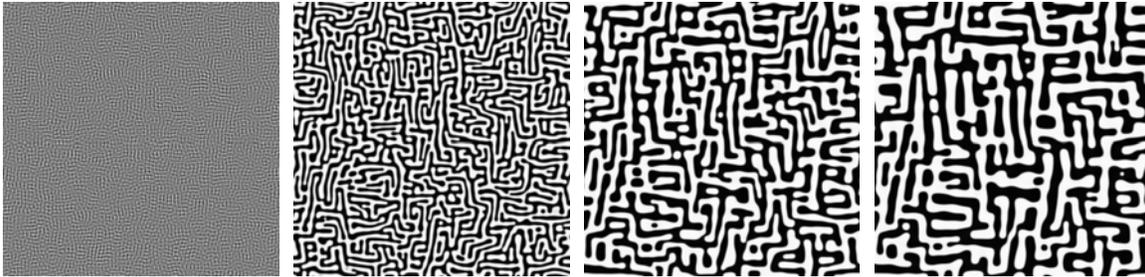


Figure 8 Microstructural evolution in a spinodally decomposing binary system of composition of $c = 0.5$ in presence of cubic elastic field. (a) $t = 100$, (b) $t = 1000$, (c) $t = 5000$ and (d) $t = 10000$.

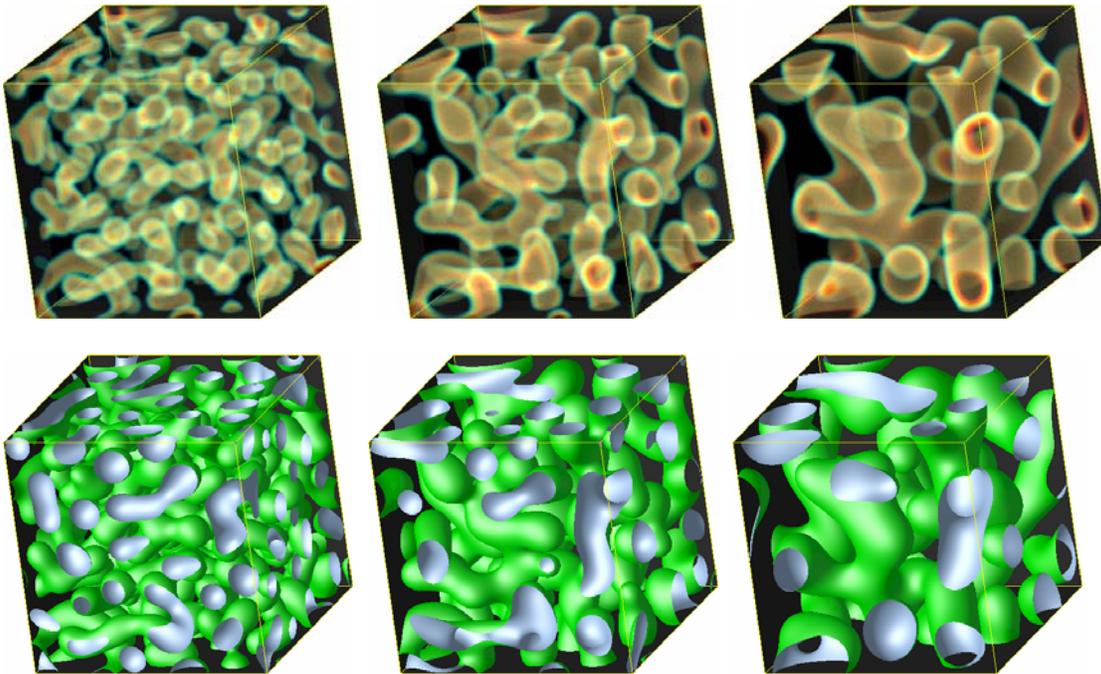


Figure 9 Concentration profile in a spinodally decomposing system (70A-30B) after 550, 1000 and 2000 time units. Red colour indicates a solute concentration of 1.0 and blue indicates a concentration of 0.5. The isoconcentration surfaces of the corresponding microstructures are also given to clearly delineate the two solute rich regions.

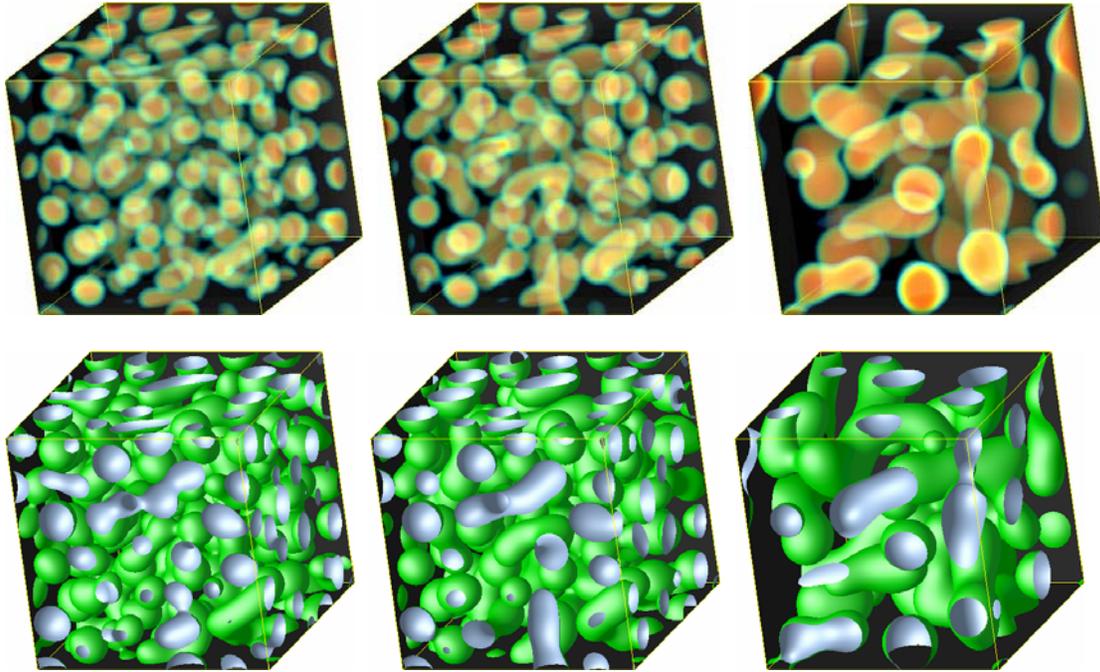


Figure 10 Concentration profile in a spinodally decomposing system (70A-30B) with isotropic elastic constants after 750, 1000 and 2000 time units. Red colour indicates a solute concentration of 1.0 and blue indicates a concentration of 0.5. The isoconcentration surfaces of the corresponding microstructures are also given to clearly delineate the two solute rich regions.

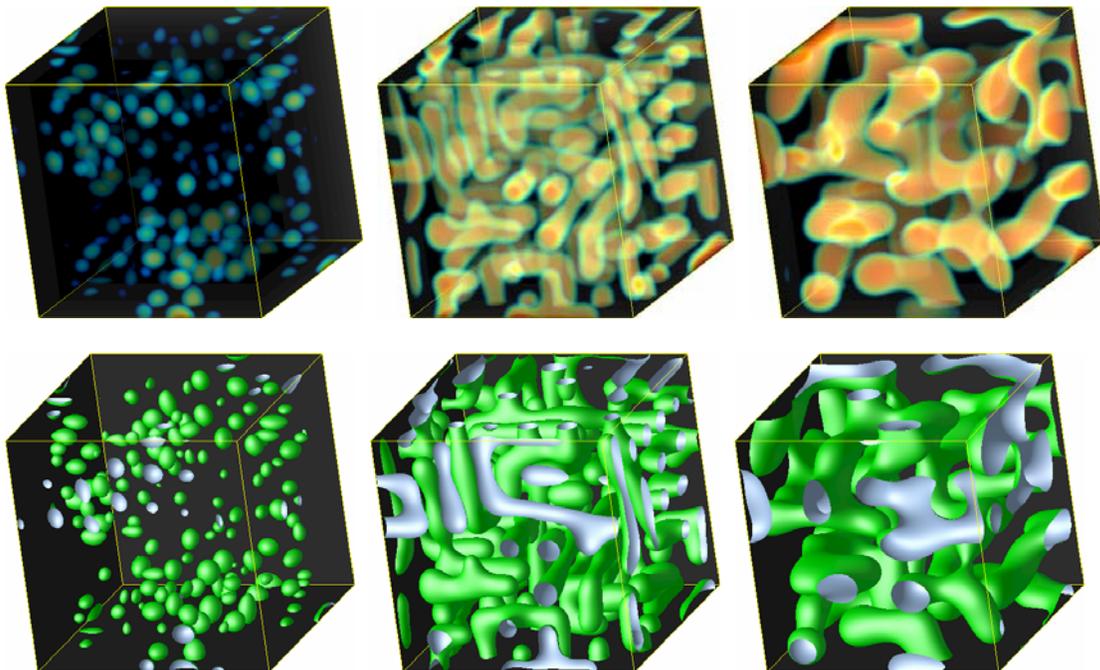


Figure 11 Concentration profile in a spinodally decomposing system (70A-30B) with cubic elastic constants after 550, 1000 and 2000 time units. Red colour indicates a solute concentration of 1.0 and blue indicates a concentration of 0.5. The isoconcentration surfaces of the corresponding microstructures are also given to clearly delineate the two solute rich regions.

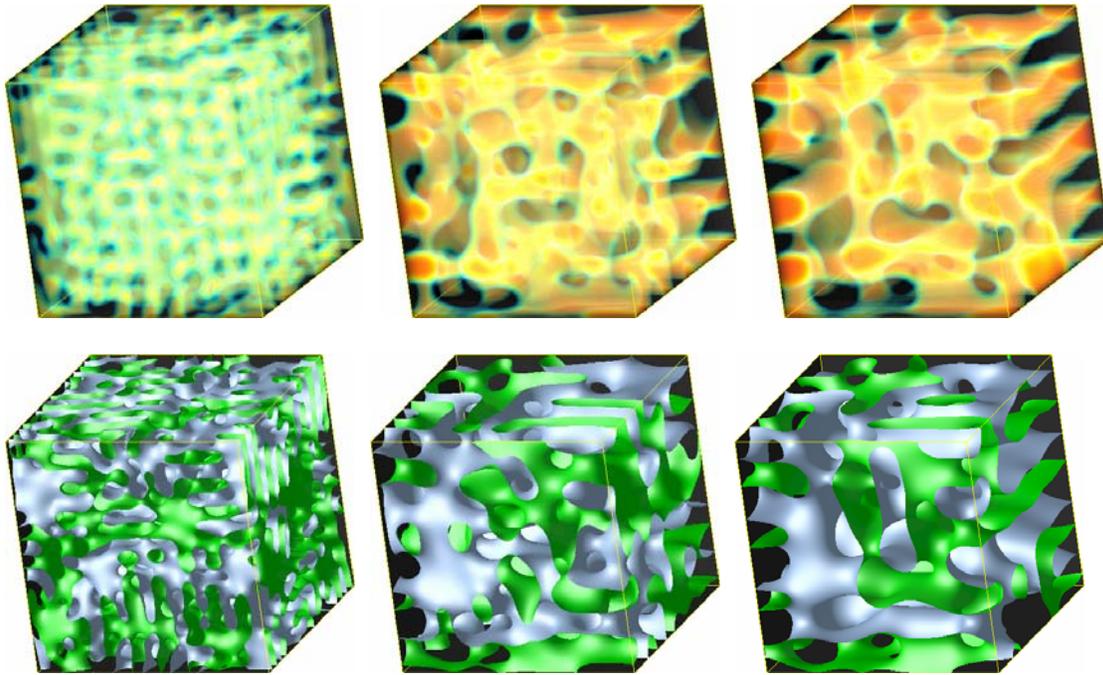


Figure 12 Concentration profile in a spinodally decomposing system (50A-50B) with cubic elastic constants after 200, 1000 and 2000 time units. Red colour indicates a solute concentration of 1.0 and blue indicates a concentration of 0.5. The isoconcentration surfaces of the corresponding microstructures are also given to clearly delineate the two solute rich regions.

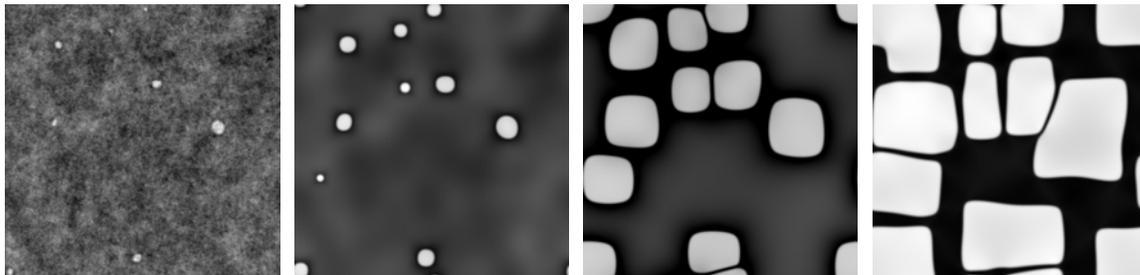


Figure 13 Microstructural evolution in a model Ni-Al system with 15% Al. (a) $t = 10$, (b) $t = 15$, (c) $t = 50$ and (d) $t = 500$. Sustained noise (mimicking fluctuations) has been introduced till $t = 10$ to overcome the barrier for nucleation of the second phase.

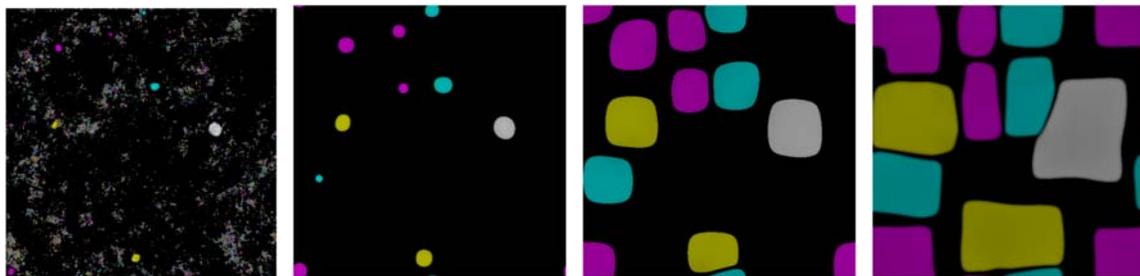


Figure 14 Microstructures with four different variants of the second phase coloured differently (cyan, magenta, yellow and white) corresponding to those shown in figure 11. Precipitates belonging to same variant can be seen to undergo coalescence as they grow, whereas those belonging to different variants are separated by antiphase boundaries.

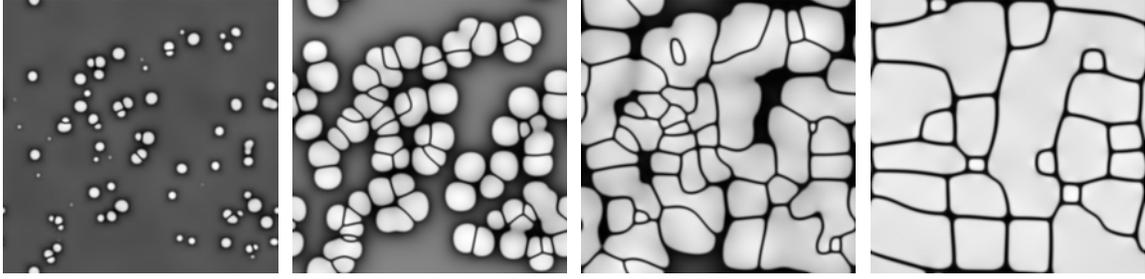


Figure 15 Microstructural evolution in a model Ni-Al system with 20% Al. (a) $t = 5$, (b) $t = 15$, (c) $t = 50$ and (d) $t = 500$. Sustained noise was stopped after $t = 4$.