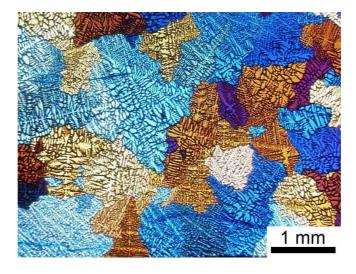


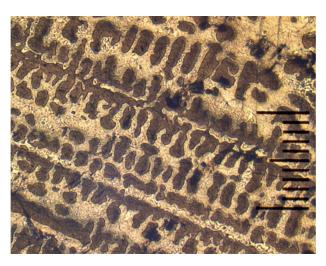
A sapphire nanowire's oscillatory growth

Sapphire nanowires produced using a vapour-liquid-solid (VLS) nanowire growth technique directly on a TEM microscope 'hot stage'.

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Examples of non-faceted growth morphologies

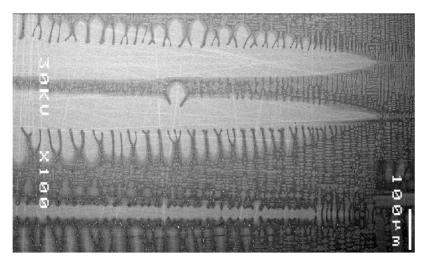




Non-faceted dendrites in a Pb-Sn solder

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Examples of non-faceted growth morphologies



Non-faceted dendrites in a Ni super alloy

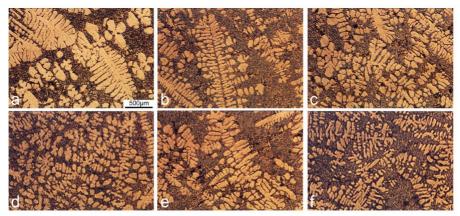
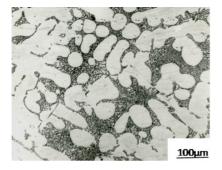


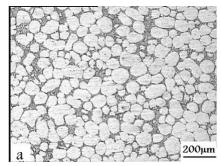
Fig. 1 – Effect of external pressure on the microstructure of squeeze cast LM13 alloy: (a) 0 (atmospheric pressure), (b) 20 MPa, (c) 53 MPa, (d) 106 MPa, (e) 171 MPa, (f) 211 MPa ($T_m = 730 \,^{\circ}\text{C}$ and $T_d = 200 \,^{\circ}\text{C}$).

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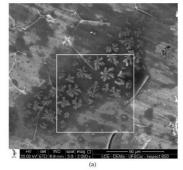
Examples of non-faceted growth morphologies



Non-faceted dendritic growth of a hypoeutectic Al-Si alloy



Non-faceted non-dendritic growth of a hypoeutectic Al-Si alloy



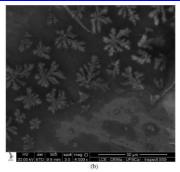
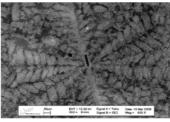
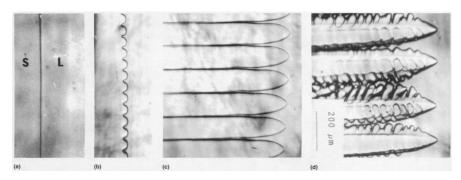


Figure 4. Dendrites presence in as-deposited microstructure (a). Detail of dendrites from white box region (b).

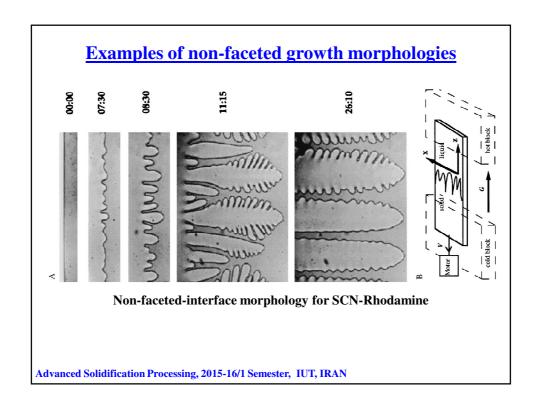


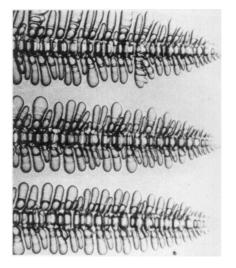
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Examples of non-faceted growth morphologies

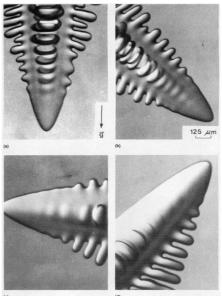


Non-faceted-interface morphology for SCN crystals



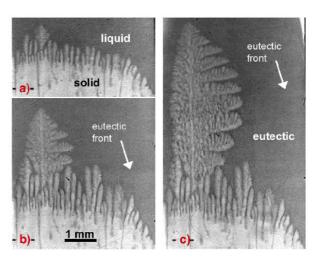


Non-faceted growth of SCN dendrites

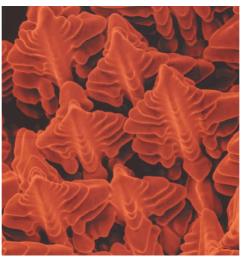


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Examples of non-faceted growth morphologies



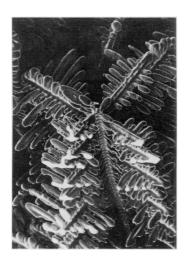
Non-faceted growth of dendrites in an Al-3.5Ni alloy

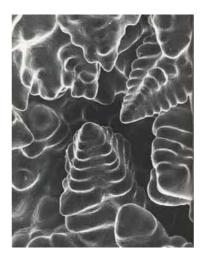


Non-faceted dendrites in a nickel-based super alloy single-crystal weld

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Examples of non-faceted growth morphologies

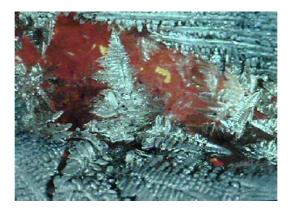




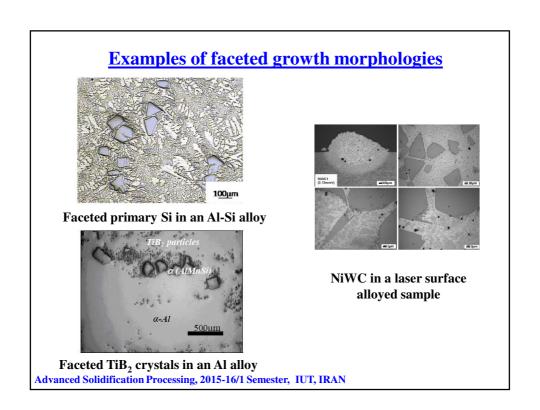


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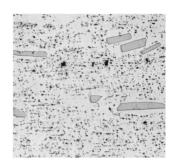
Examples of non-faceted growth morphologies



Ag dendrites



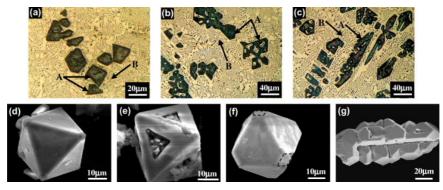




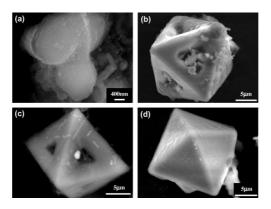
Graphite flake in Cast Iron

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Examples of faceted growth morphologies



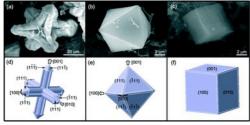
Faceted primary Mg_2Si particles in an Al–Si-Mg alloy



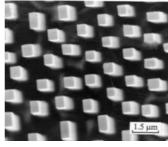
Faceted primary Mg₂Si particles at different growth stages in Al–15% Mg2Si alloy

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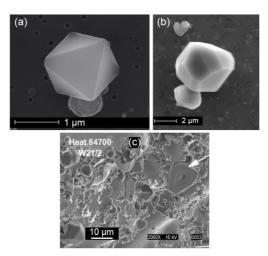
Examples of faceted-growth morphologies



Mg₂Si crystals



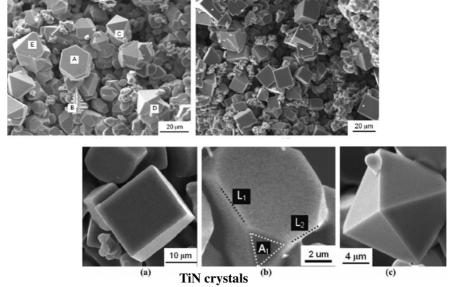
Mo fibers in Ni-Al-Mo Eutectic alloy

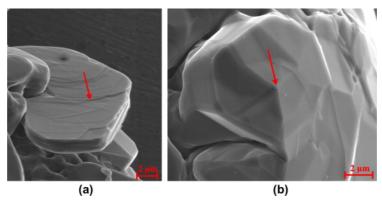


Faceted Al₂O₃ inclusion (a) octahedral, (b) non-octahedral and (c) hopper morphologies (indicated by the arrow)

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Examples of faceted growth morphologies

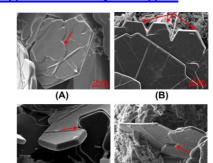




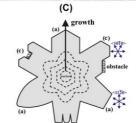
Faceted growth of graphite basal plane by
(a) 2-D nucleation and migration of ledges and
(b) spiral growth

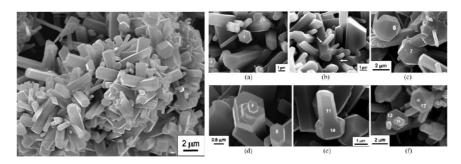
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Examples of faceted-growth morphologies



Growth instabilities of faceted graphite flakes: (a) instabilities of growth in the crystal corners, (b) flake branching and (c) growth blockage

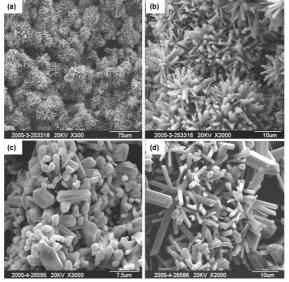




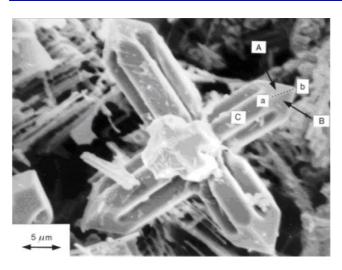
Alpha-SiAlON

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Examples of faceted growth morphologies



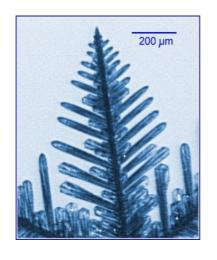
Alpha-SiAION dendrites Advanced Solidification Processing, 2015-16/1 Semester, IUT, IRAN



Faceted NbC dendrite in a Fe-34wt%Cr-5wt%Nb-4.5wt%C alloy

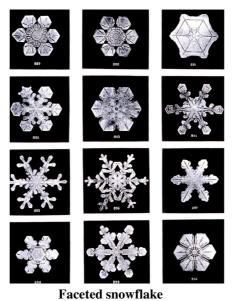
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Examples of faceted growth morphologies



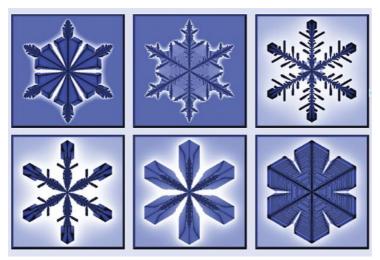


Faceted ice dendrite formation

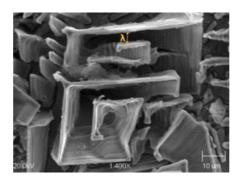


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Examples of faceted growth morphologies



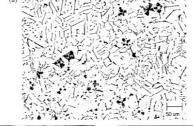
Faceted snowflake

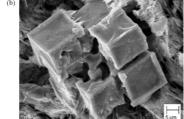


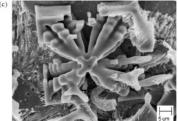
SEM micrograph of an eutectic Fe-C-V-Si alloy showing overlapping of VCx carbide spiral segments

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Examples of faceted growth morphologies

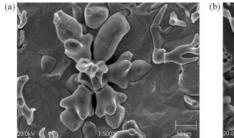


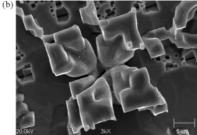




(a) Hypereutectic Fe-C-V-Si alloy

(b, c) Primary non-faceted/faceted VCx dendrites





(a) Non-faceted and (b) non-faceted/faceted interfaces corresponding to primary VC