

Seeding

Terese Bergfors

Dept of Cell and Molecular Biology

Uppsala University, Uppsala Sweden

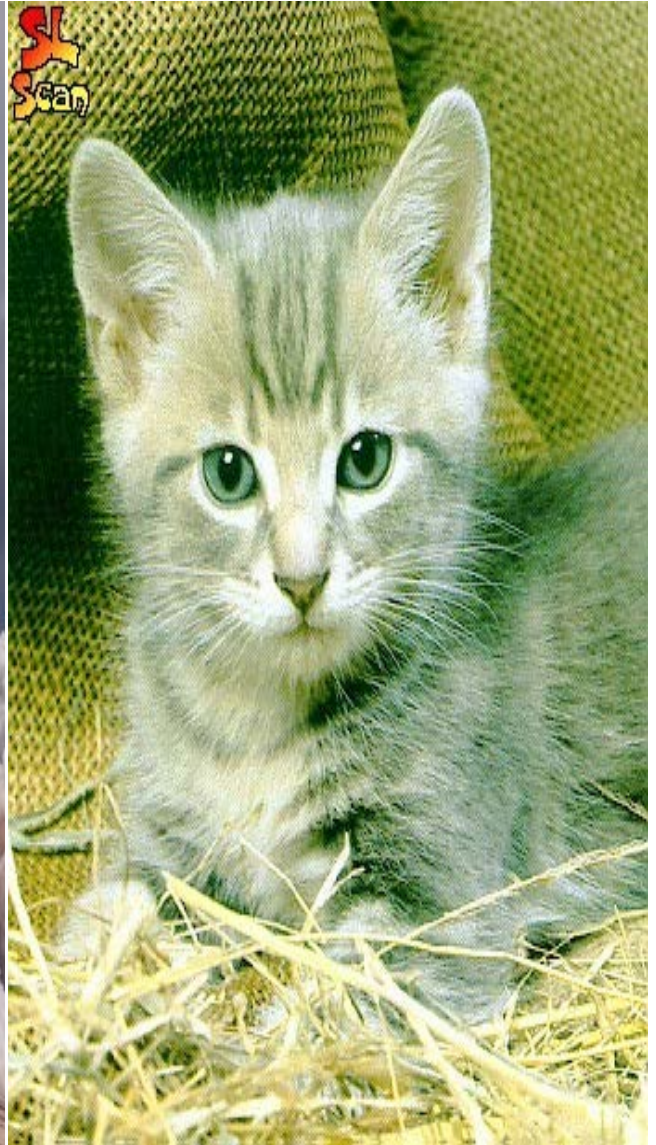
terese@alpha2.bmc.uu.se

Examples of two new
structures from our
laboratory where seeding
was critical to obtaining the
crystals

Seeding

- Why seed?
- How?
- What to use as a seed?

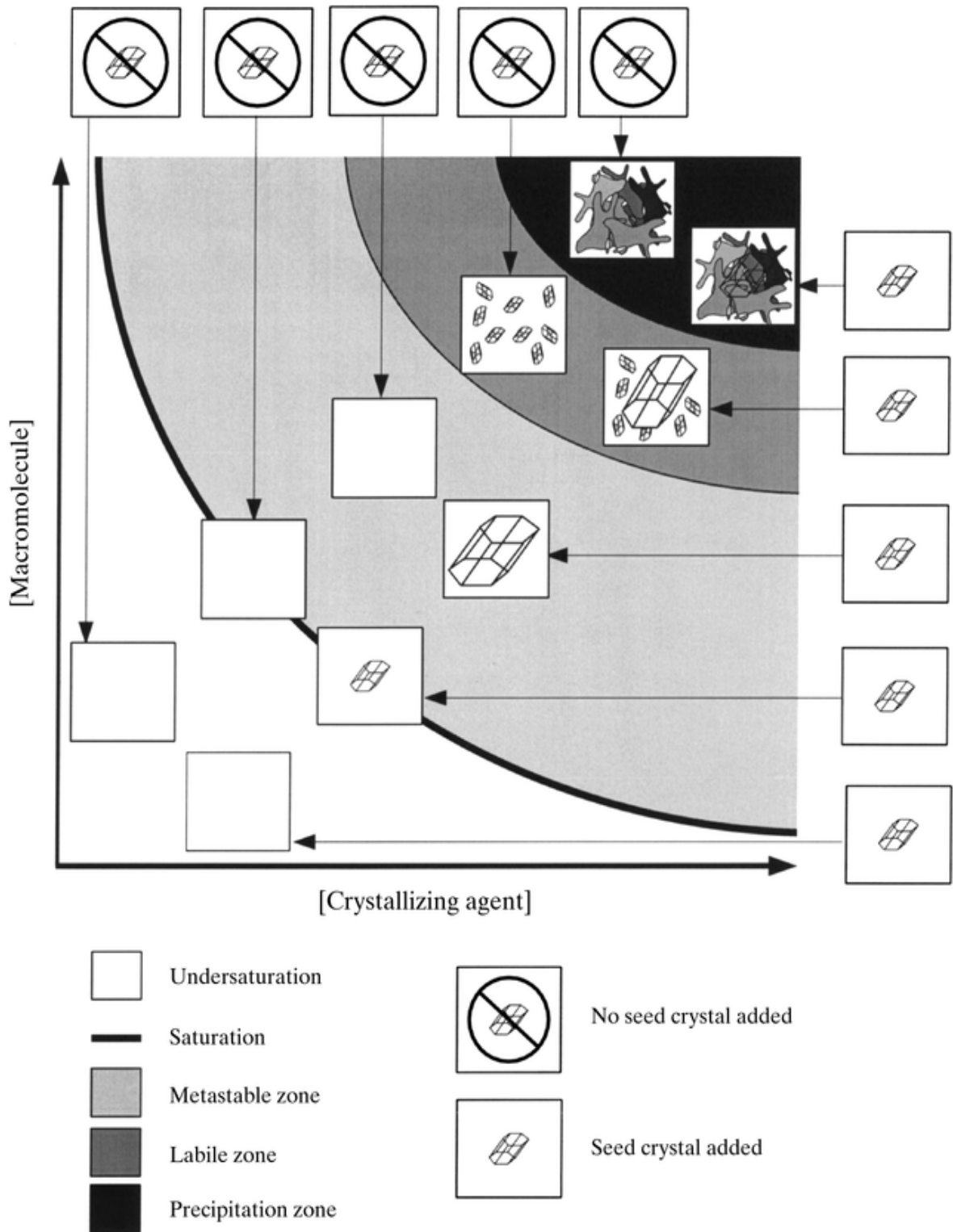
Some methods for optimization



microgravity

seeding

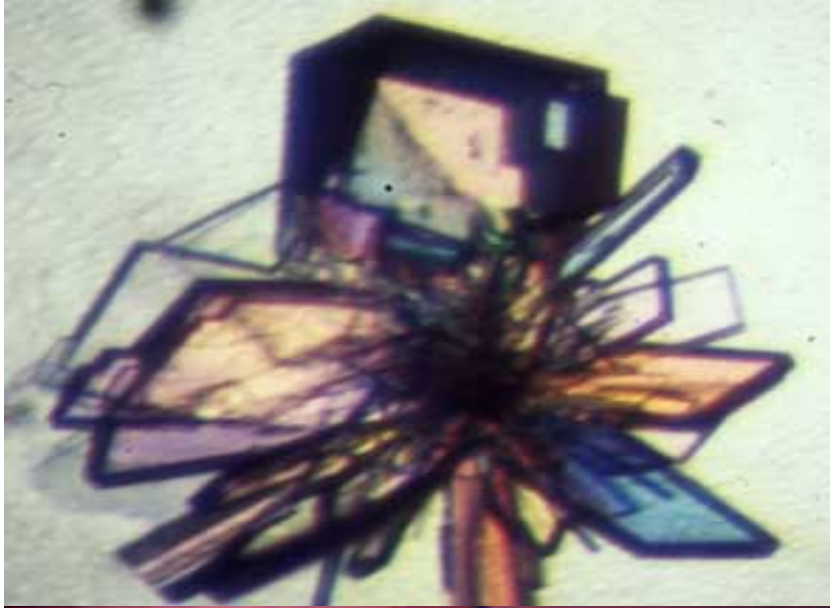
Seeding and the phase diagram



Luft and De Titta, Acta Cryst. (1999) D55, 988-993

Serial seeding

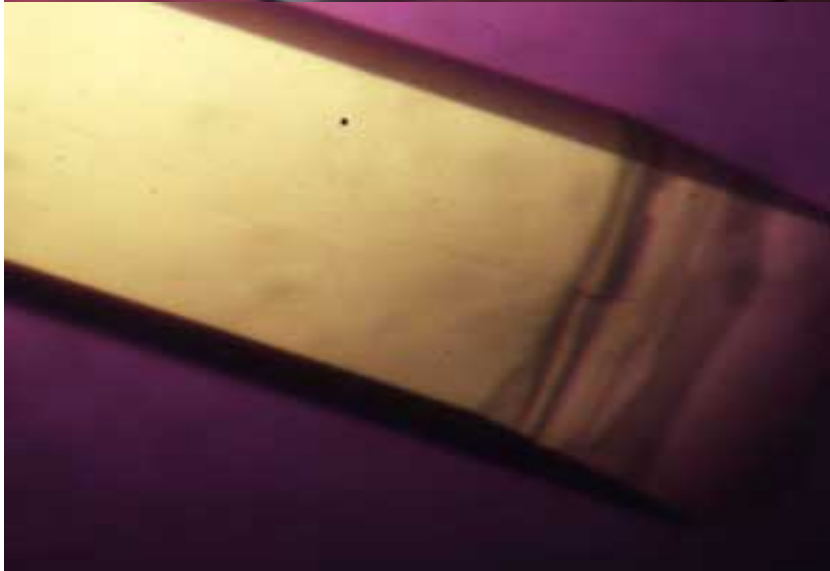
20
mg/ml



10
mg/ml



10
mg/ml



What to seed from?

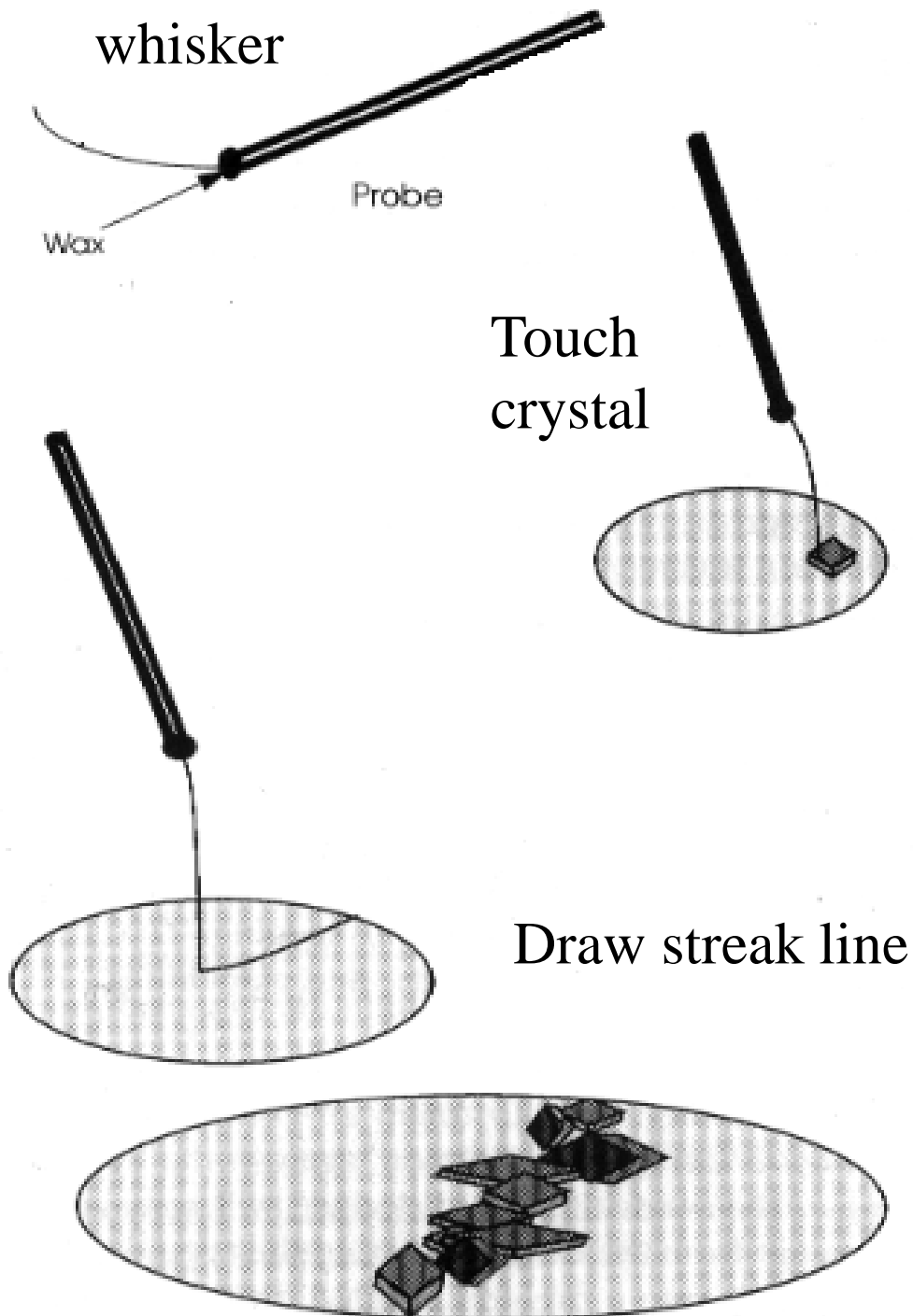


Take your best crystal

or

any solid phase

Streak seeding



Enrico Stura in "Crystallization of Nucleic Acids and Proteins" Ed. Ducruix and Giege, 1992 Oxford University Press p. 108

Does seeding solve everything?



before



after

Does seeding solve everything?



- After Seeding,
Ni



After seeding, Ni,
and ligand

Summary of Tips

- Lower concentration
- Use any solid phase
- Serial seed
- Use sitting drops