

Update on EMC Crystals current status and prospects for the near future



HG Zaunick



JLU Giessen, Germany



PANDA CM, EMC Session
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final position

Current production frames

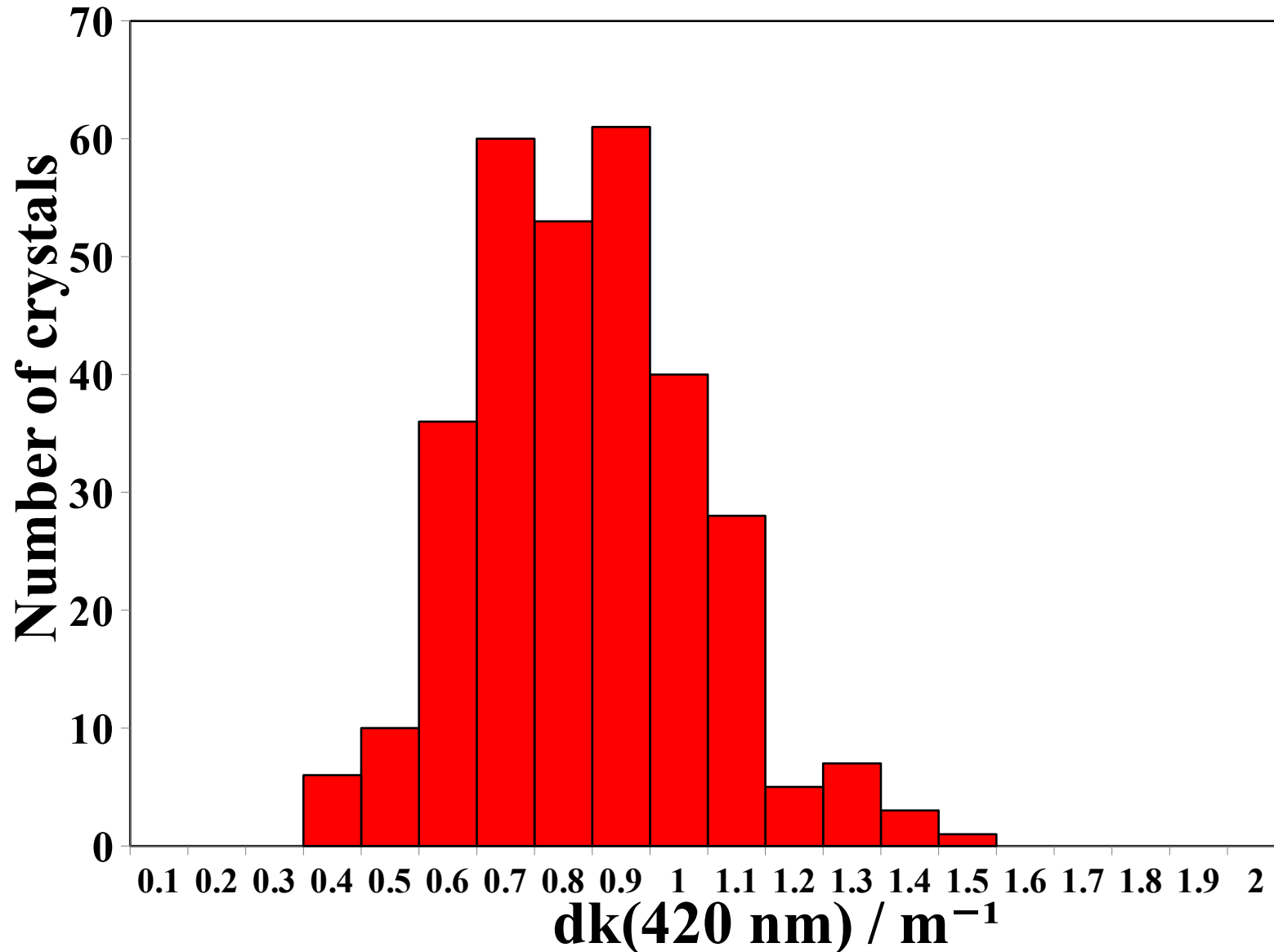
- 71 crystals produced in frame of Prague contract - concluded
- 117 crystals produced in frame of HIM Mainz contract - concluded
- Current production in frame of contract with Uppsala: ~190 xtals expected for delivery until **February 2020**
- 21 extra crystals as compensation for exposing raw material to current JLAB production
- 38 crystals produced from (old) pending Giessen contract
- Up to now: 314 xtals produced, 297 quality accepted

Future schedule

- Potential new funding for 2020 available from PANDA-CZ partner (to be confirmed, possible volume: ~70 crystals)
- Production schedule for PANDA slightly stretched in favor of JLAB production (~1000 xtals until 2023)
- New project MuonE@CERN: ~ 2500 PWO crystals foreseen (CMS quality)
- Current production rate: 50 xtals/month, boost to 70 /month possible

Status of Crystal Production @ CRYTUR

Radiation Hardness distribution: Acceptance limit 1.1 m^{-1}



Crystal Inventory

What we have:

- All FWEC crystals
- All BWEC crystals
- Barrel crystals:

12 Slices (Day-1): **4,096 out of 8,520** (missing 4624)

16 Slices (Full): **4,958 out of 11,360** (missing 6602)

Note: "missing" includes spares

Crystal Inventory

Next instrumentation options:

- Slice #0 still need **0** out of 710 (done)
- Slice #1 **209** out of 710
- Slice #2 **410** out of 710
- Slice #3 **411** out of 710
- Slice #4 **411** out of 710
- Slice #5 **414** out of 710
- Slice #6 **432** out of 710
- Slice #7 **432** out of 710
- Slice #8 **433** out of 710
- Slice #9 **448** out of 710
- Slice #10 **453** out of 710
- Slice #11 **504** out of 710
- Slices #12...#14 **490** out of 710
- Slice #15 **508** out of 710