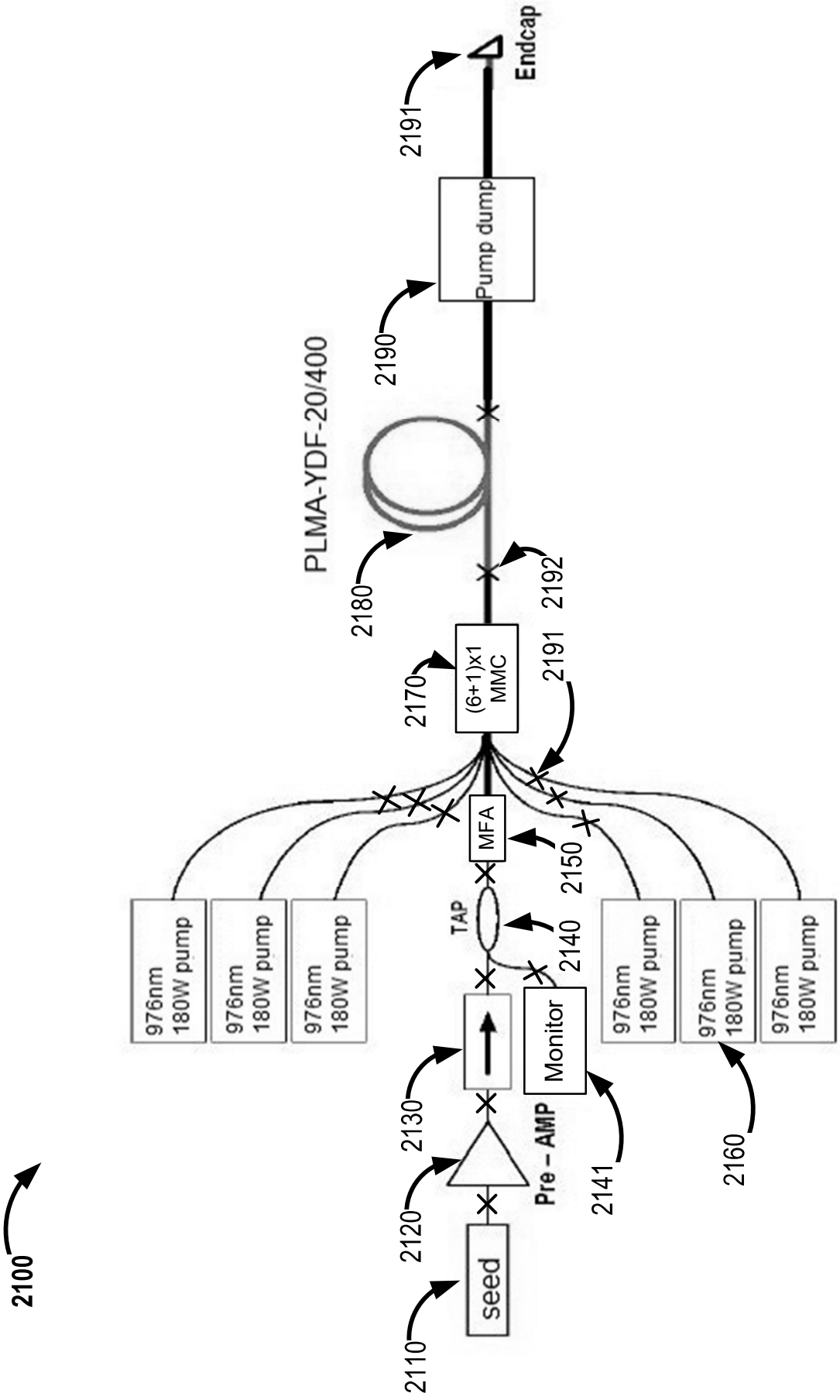


Fig. 9
Prior Art

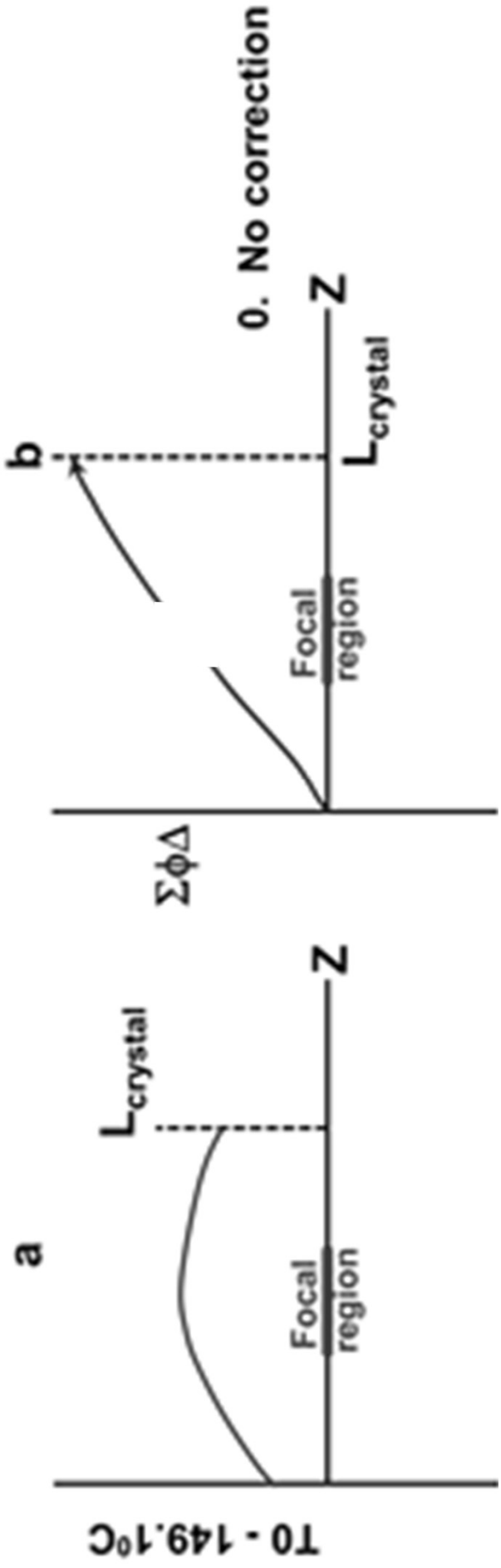
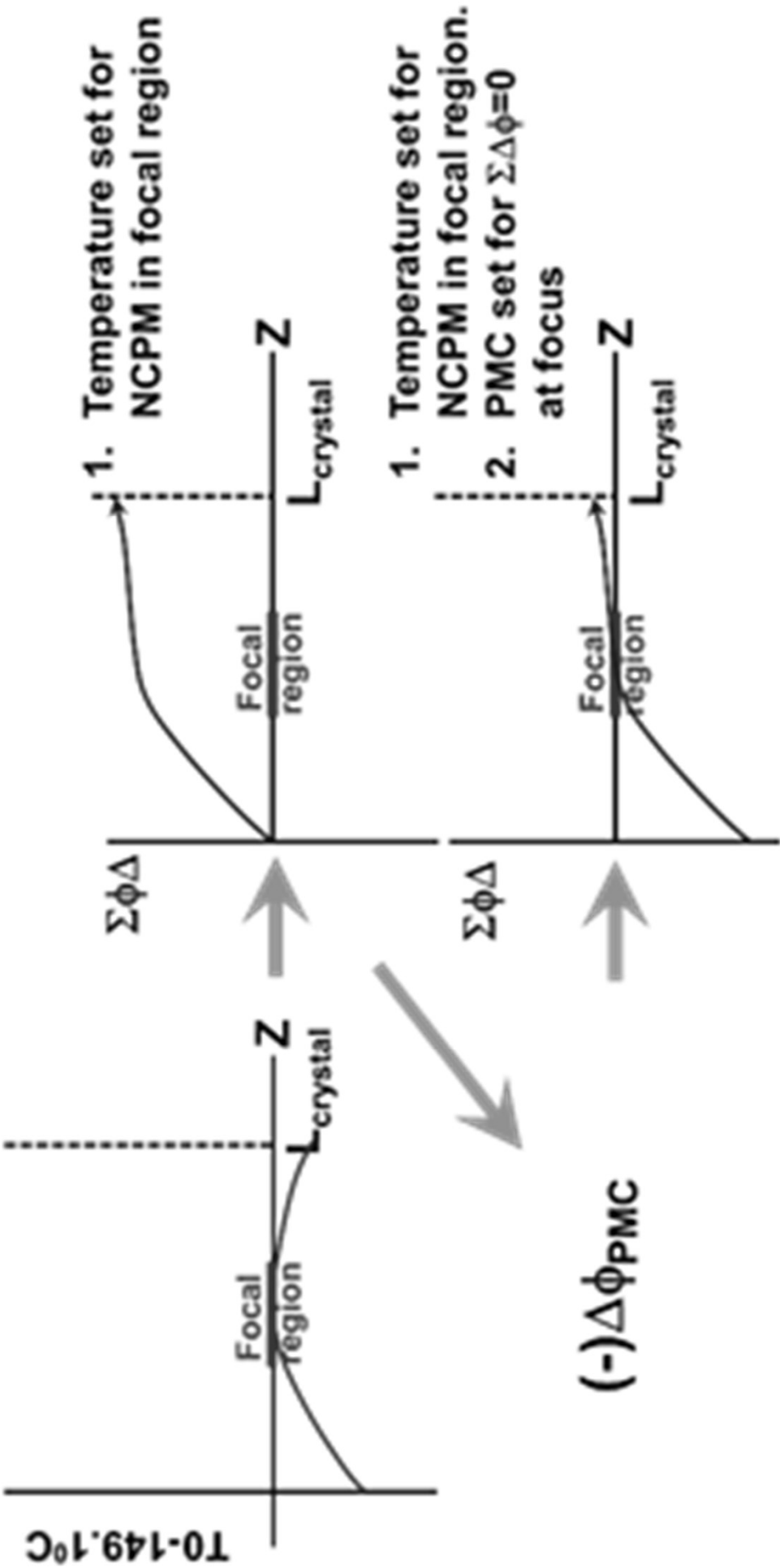


Fig. 18A

Fig. 18B


T0-149.10C
Focal region
Z
Lcrystal
Fig. 19A
(-)ΔφPMC
ΣφΔ
1. Temperature set for NCPM in focal region
Fig. 19B
1. Temperature set for NCPM in focal region.
2. PMC set for ΣΔφ=0 at focus
Fig. 19C

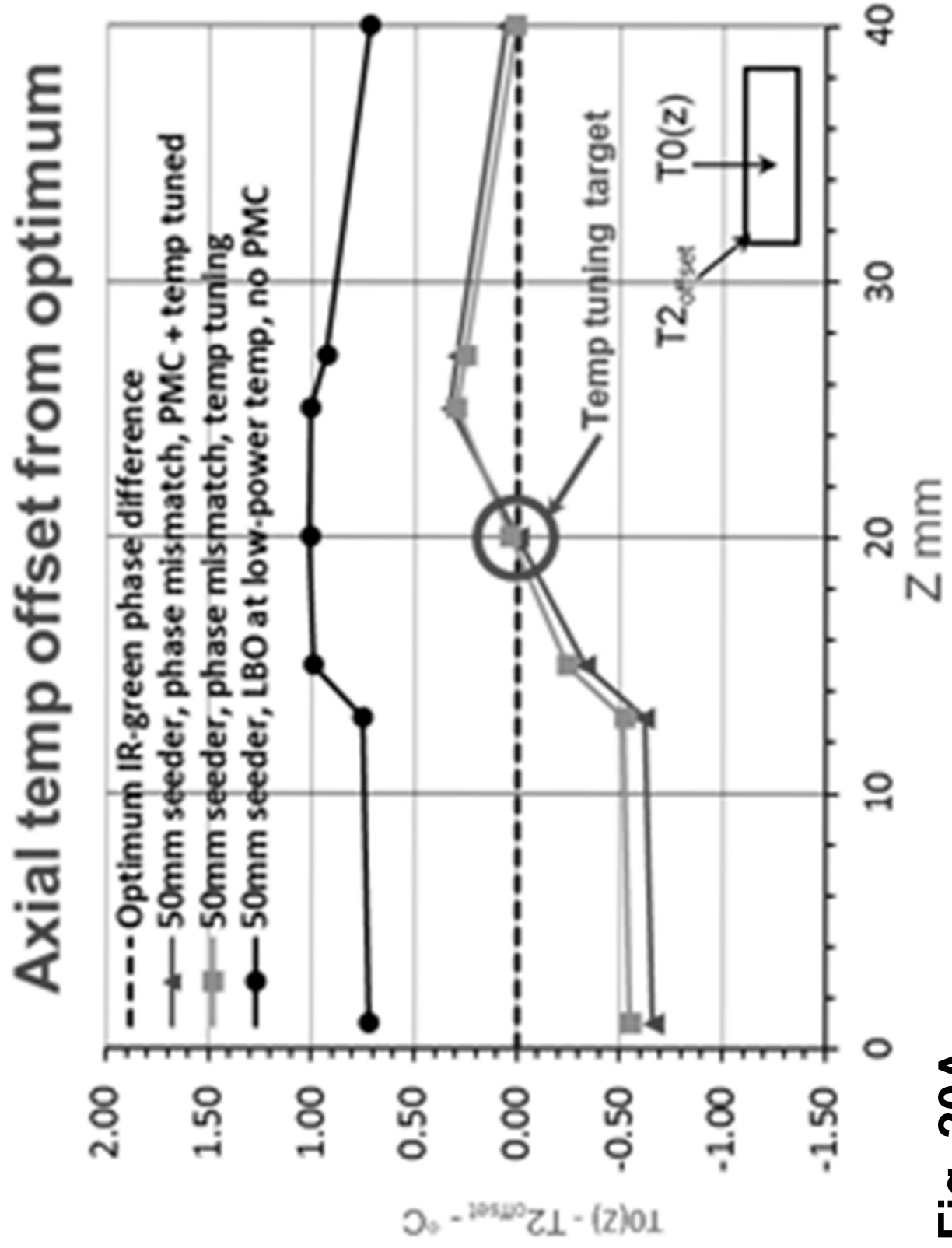

Axial temp offset from optimum
Optimum IR-green phase difference
50mm seeder, phase mismatch, PMC + temp tuned
50mm seeder, phase mismatch, temp tuning
50mm seeder, LBO at low-power temp, no PMC
Temp tuning target
T0(z)
T2offset
2.00
1.50
1.00
0.50
0.00
-0.50
-1.00
-1.50
0
10
20
30
40
Z mm
T0(z) - T2offset - °C

Fig. 20A

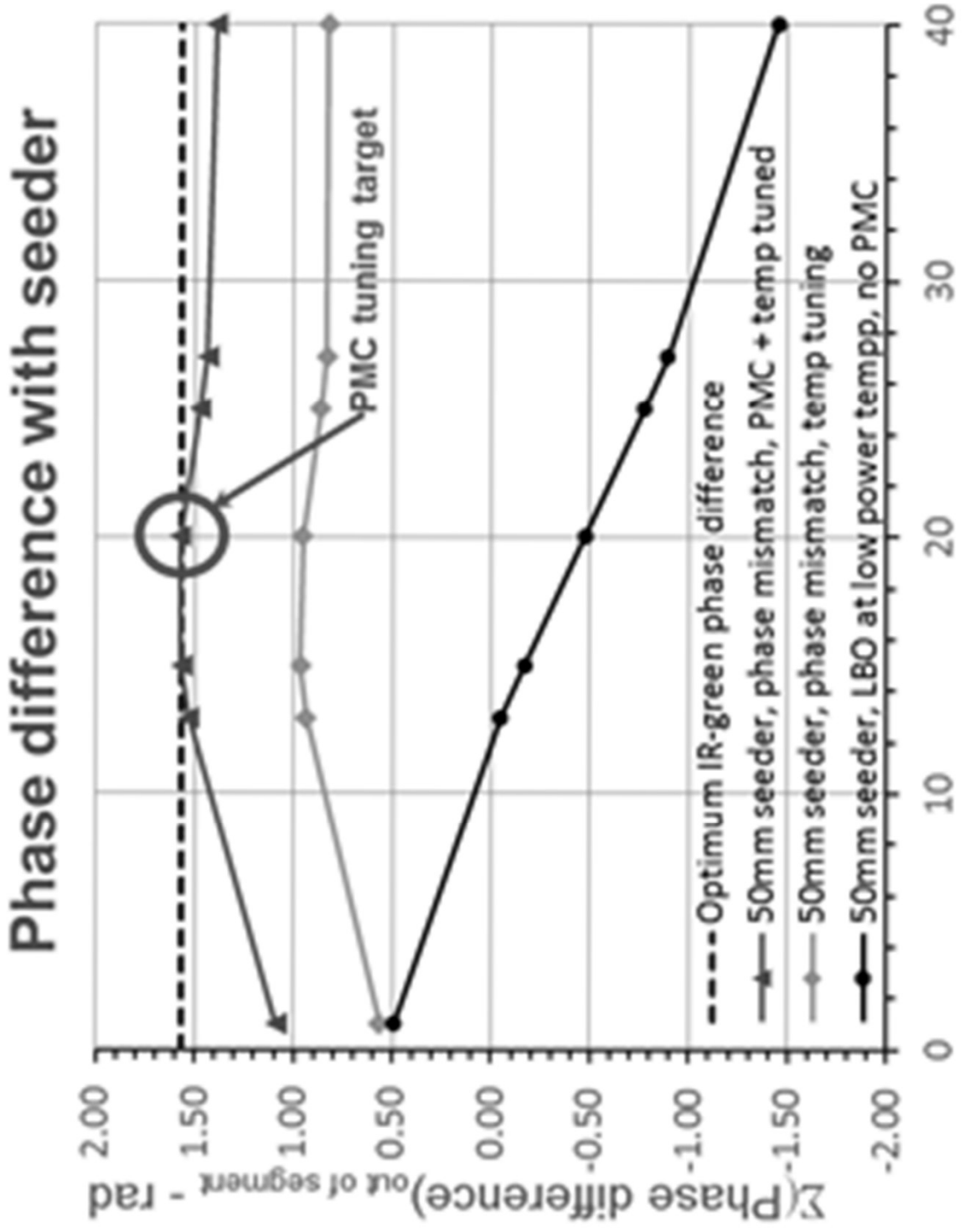

Phase difference with seeder
PMC tuning target
Optimum IR-green phase difference
50mm seeder, phase mismatch, PMC + temp tuned
50mm seeder, phase mismatch, temp tuning
50mm seeder, LBO at low power tempp, no PMC
Σ(Phase difference)out of segment - rad
Z - mm
2.00
1.50
1.00
0.50
0.00
-0.50
-1.00
-1.50
-2.00
0
10
20
30
40

Fig. 20B

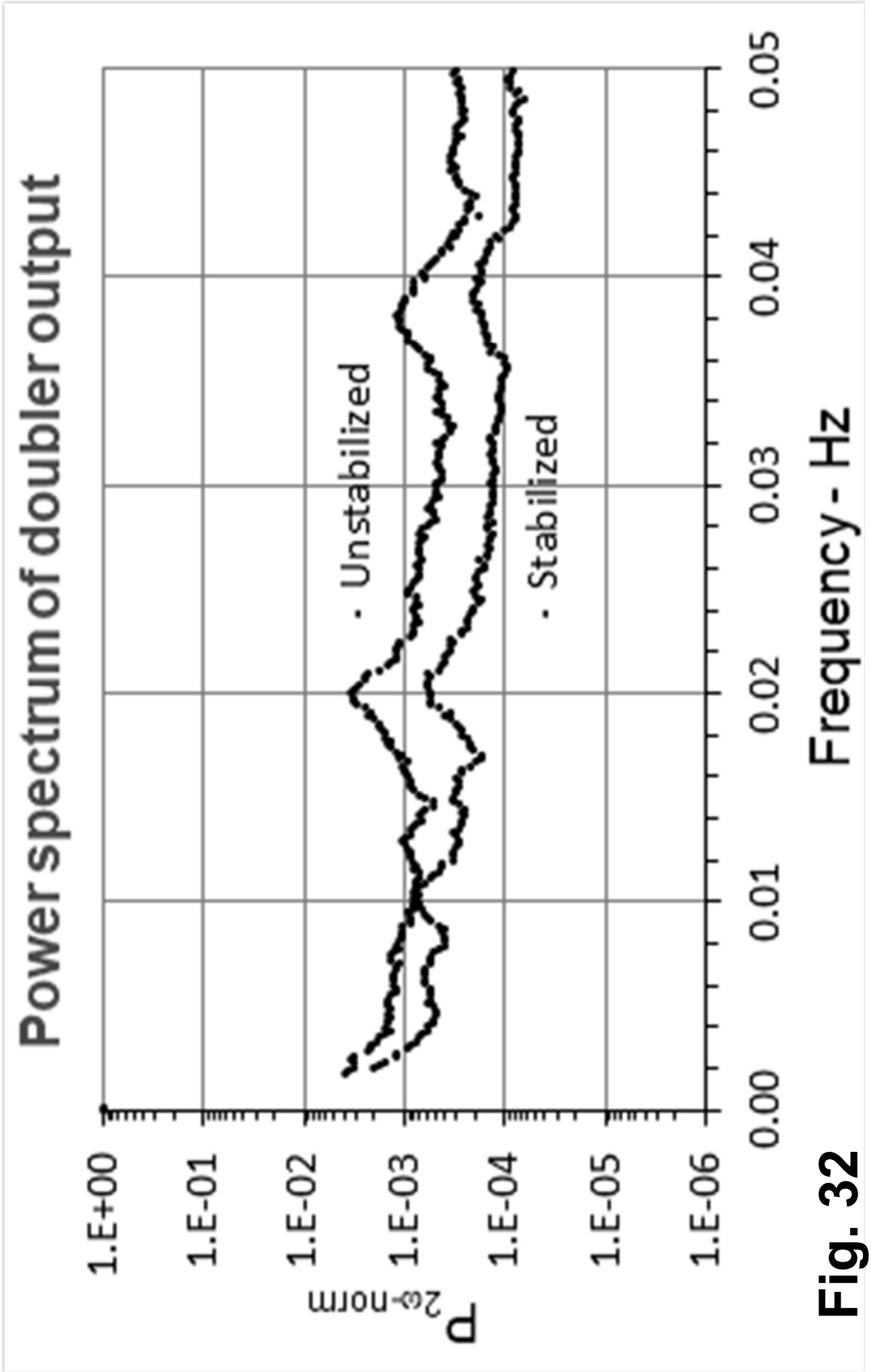

Power spectrum of doubler output
2ε-norm
1.E+00
1.E-01
1.E-02
1.E-03
1.E-04
1.E-05
1.E-06
0.00
0.01
0.02
0.03
0.04
0.05
Frequency - Hz
Unstabilized
Stabilized

Fig. 32

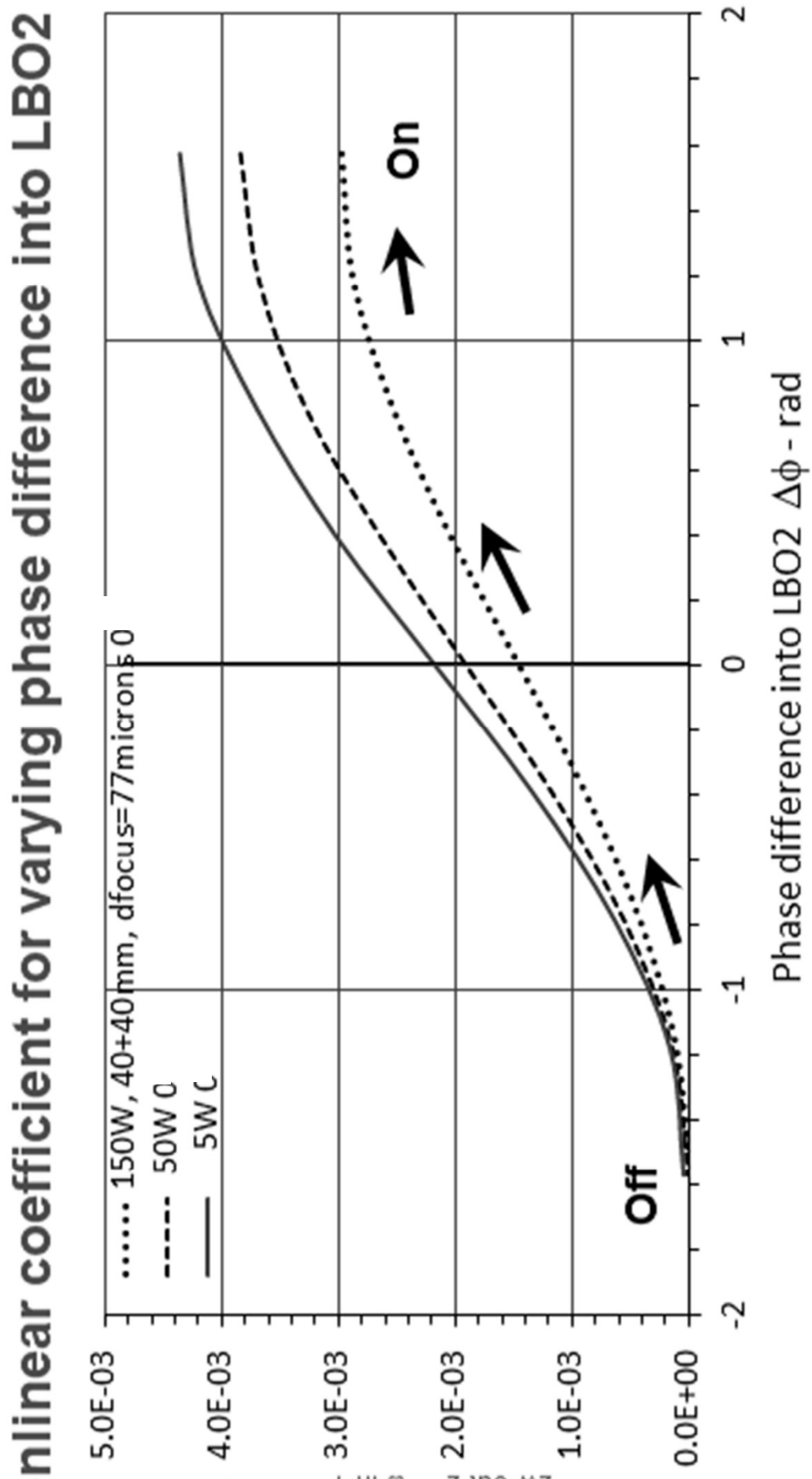

Nonlinear coefficient for varying phase difference into LBO2
150W, 40+40mm, dfocus=77microns
50W
5W
On
Off
Phase difference into LBO2 Δϕ - rad
5.0E-03
4.0E-03
3.0E-03
2.0E-03
1.0E-03
0.0E+00
-2
-1
0
1
2

Fig. 33