

CHERENKOV-TYPE CONDITIONS
OF SYNCHRONISM FOR CONICAL
EMISSION OF FEMTOSECOND BESSEL BEAMS

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S u m m a r y

It has been demonstrated that the angular distribution of wavelengths in the conical emission (CE) by a femtosecond Bessel beam in water is governed by the condition that the axial phase velocities of all CE spectral components are identical. The enhancement along the axial direction owing to the four-wave mixing results in the appearance of discrete rings of conical emission.