

3. Conclusion

We have demonstrated SC generation in 1 cm long CMOS compatible hydrogenated amorphous silicon waveguides. Using wide waveguides (up to 800 nm width) that provide very low dispersion, we demonstrated a spectral broadening greater than 550 nm around telecommunication wavelengths with a low on chip peak power of 4 W. Quite unexpectedly, we did not observe any optical degradation in the wider waveguides. These results highlight the potential of a-Si-H for integrated, on chip, non linear optics.

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