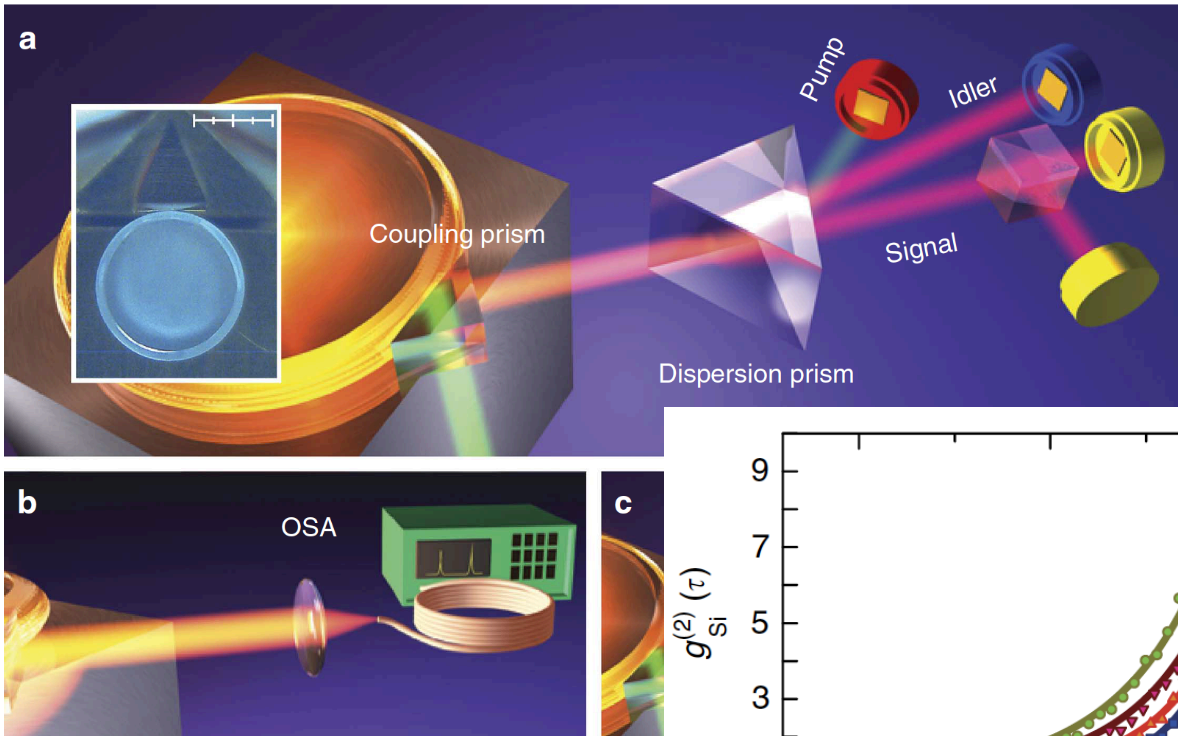
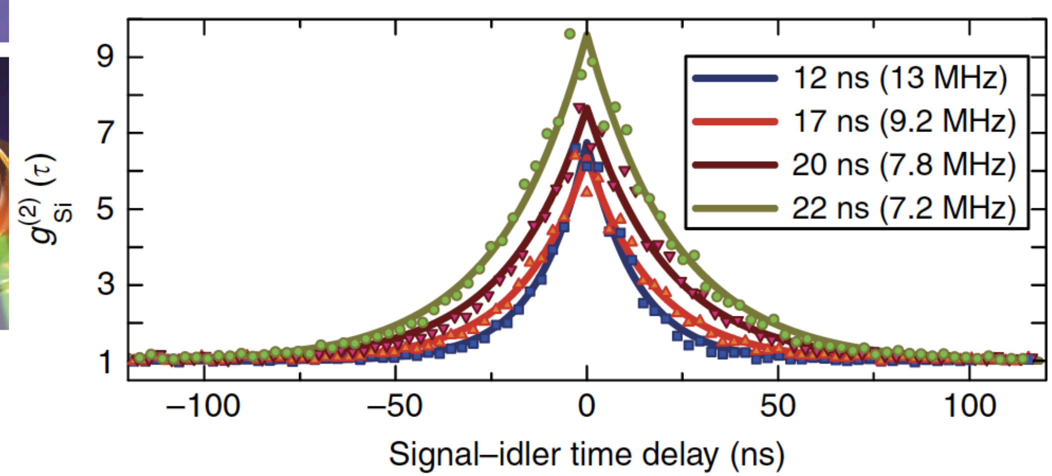
Q1. comparing to other research setup of $g_{1,2}^{(2)}(0)$

A disk-shaped, monolithic and intrinsically stable resonator is made of lithium niobate (LiNbO3) and supports a cavity-assisted triply resonant spontaneous parametric down conversion (SPDC) process.

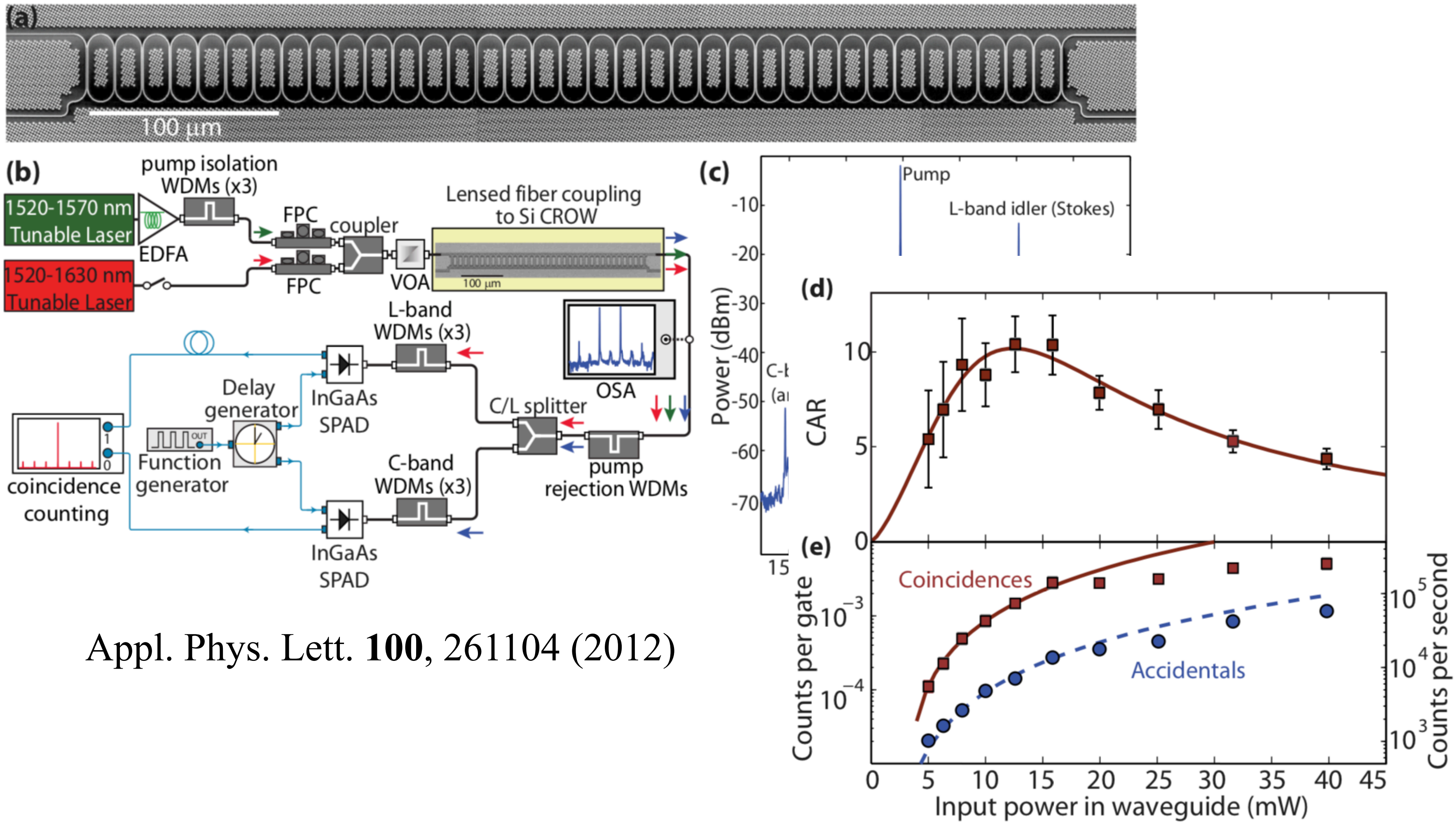


Nat. Com. **4**, 1818 (2013)



* Also there is a group worked with quantum dot but they got even less value than 9 of cross correlation

Q2. comparing to other research setup of *CAR*



Appl. Phys. Lett. **100**, 261104 (2012)

* Using Si-insulator for having CAR value of 30 at maximum

Q3. resonance frequency variation affection

using coupled mode theory (input-output formalism), we can write the dynamics of the field inside the resonators as:

$$\frac{d}{dt}\begin{pmatrix} a_1 \\ a_2 \end{pmatrix} = \begin{pmatrix} -\kappa_{\rm in} - \kappa_{\rm ex} & iJe^{+I\phi} \\ iJe^{-I\phi} & -\kappa_{\rm in} - \kappa_{\rm ex} \end{pmatrix}\begin{pmatrix} a_1 \\ a_2 \end{pmatrix} - \sqrt{2\kappa_{\rm ex}}\begin{pmatrix} \mathcal{E}_{\rm in} \\ 0 \end{pmatrix}$$

the middle ring is anti-resonant with the side rings, the three rings can be effectively described by two resonators coupled with a hopping phase.

For the 2D array, one can use the Hamiltonian description (coupled mode theory) or the transfer matrix formalism as long as the relevant bandwidths are smaller than the free spectral range.

$$i.e.,\ J,\ \kappa_{ex},\ \kappa_{in} \ll FSR$$