Physics Topics that can be studied

1. Lepton pair production in two-photon interactions.
   $A+A \rightarrow A+A+e^{+}+e^{-}$. Pure QED, but $Z\alpha \approx 0.6$.

2. Meson Spectroscopy, $\gamma\gamma \rightarrow$ resonance. Coupling to $\gamma\gamma$ probes the charge content of the final state.

3. Meson pair production in $\gamma\gamma$ interactions. Possible resonance in $\gamma\gamma \rightarrow \rho\rho$ near threshold.

4. Exclusive Vector Meson Production. $\gamma+A \rightarrow V+A$. One nucleus emits a photon, which fluctuates into a Vector Meson and scatters off the other nucleus.

5. The reaction $\gamma+N \rightarrow V+N$ mediated by meson (low energies) or Pomeron (high energies). Study meson/Pomeron coupling to nuclei.

6. J/Ψ production is of special interest since for γ+nucleon the energy dependence violates the soft-Pomeron/Regge-theory behaviour.

7. Search for excited Vector Meson states: $\rho(1450)$, $\rho(1700)$, $\omega(1600)$, $\phi(1680)$.

8. Strong-field effects. Multiple Vector Meson production in a single event.