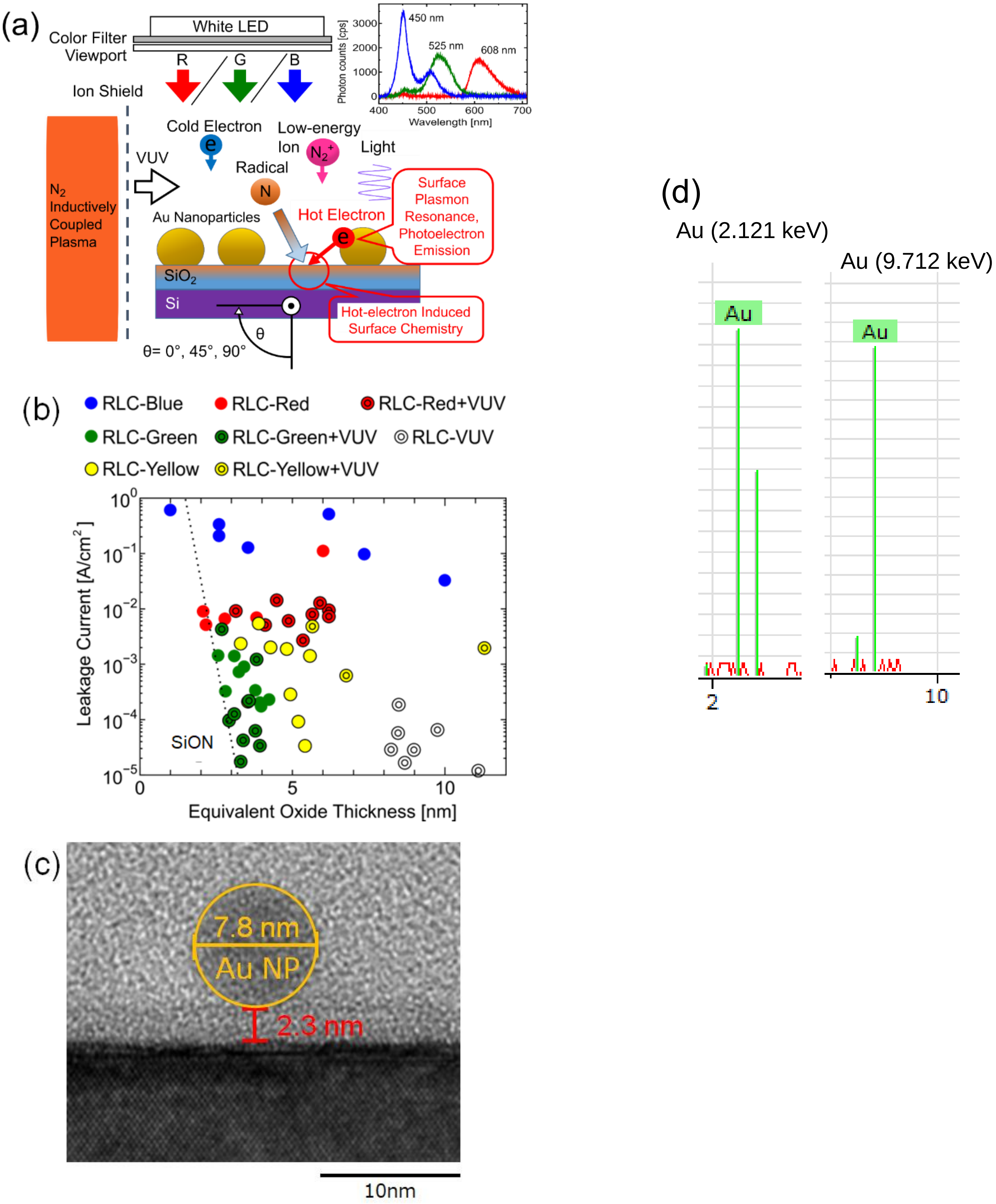

Figure 1. (a) Apparatus of a plasmonic plasma process using gold nanoparticles on the substrate. The wavelength of the LED light source for plasmon excitation was controlled by a filter and mixed with plasma VUV light. (b) Dielectric characteristics of 5-minute treated SiON film for each light irradiation conditions. (c) Cross-sectional TEM image of SiON film after plasmonic process. Uniformity of the SiON film is confirmed around the gold nanoparticle. (d) EDX spectrum of Au in the SiON film. The data (red) shows the signals are less than the detection limit.