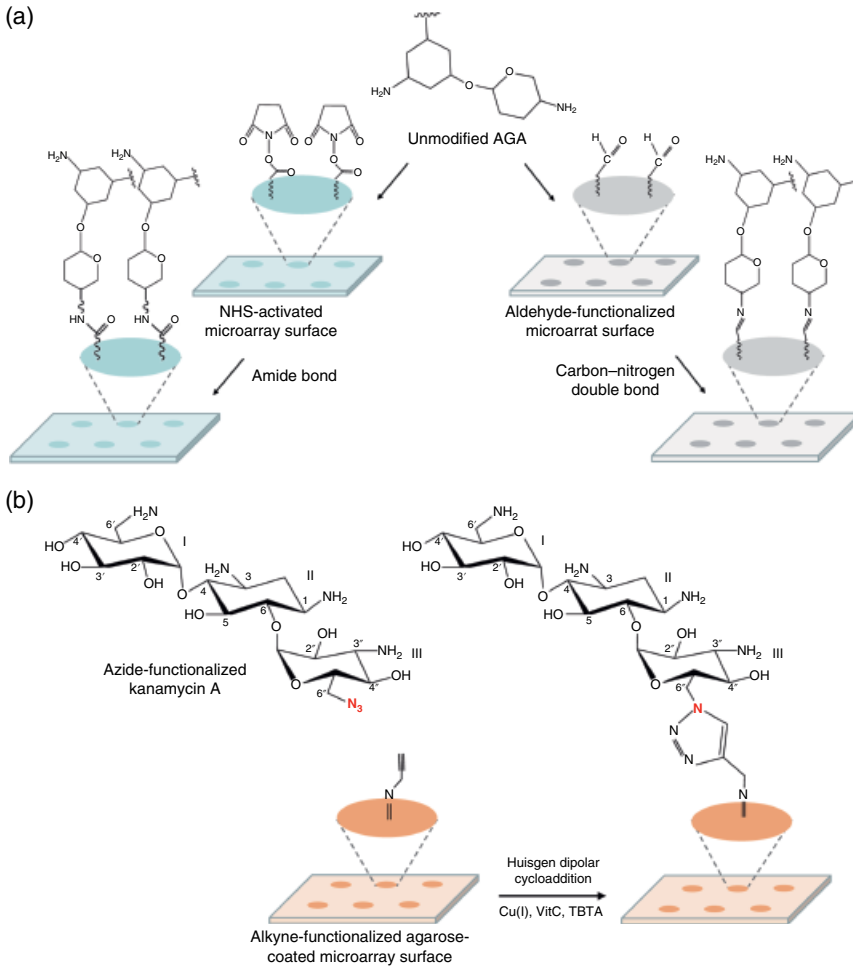

Figure 1.4 Examples of chemical approaches to prepare covalent aminoglycoside microarrays for studies of RNA and protein target interactions. (a) Immobilization of unmodified aminoglycosides through an amide bond onto *N*-hydroxysuccinimide (NHS)-activated glass slides or through a carbon–nitrogen double bond onto aldehyde-functionalized glass slides; a general depiction of an AGA is shown. (b) Immobilization of azide-functionalized kanamycin A at the C-6′ hydroxyl group onto an alkyne-functionalized agarose-coated microarray surface using the Huisgen dipolar cycloaddition reaction.

agarose-coated surfaces by a Huisgen dipolar cycloaddition reaction (Figure 1.4b). The same group also modified aminoglycosides with an alkyne group and constructed microarrays onto azido-displaying surfaces (Disney and Childs-Disney 2007). These strategies were used to develop a high-throughput and sensitive microarray-based method to study the modification of AGAs by