respective corresponding contact elements of the wafer and die element being bonded to one another by means of a diffusion bond.

28. A positioning member for use in positioning a plurality of die elements on a wafer, the wafer having a plurality of wafer integrated circuits provided thereon, said integrated circuits each having a plurality of contact elements, said die elements each having a plurality of die contact elements provided thereon,

with the positioning member provided in predetermined juxtaposition with said wafer, the positioning member having a plurality of formations at locations of the positioning member corresponding to locations of said plurality of wafer integrated circuits, said formations defining respective sets of lateral boundaries arranged to constrain movement of respective die elements provided on the wafer surface such that respective corresponding contact elements of the wafer integrated circuits and die elements are aligned with one another.

29. A structure as claimed in claim 28 wherein said positioning member is formed directly on said wafer, preferably from at least one selected from amongst a porous oxide, spin-on-glass (SOG), polyimide, benzocyclobutene (BCB), photosensitive organic polymers, and epoxy or epoxy-based photoresist.

30. A structure as claimed in claim 28 wherein said positioning member is formed separately from the wafer and is not formed directly on said wafer, preferably from at least one selected from amongst a glass, ceramic, quartz, aluminum, stainless steel, titanium, copper and a porous oxide.

~~31. A 3D integrated circuit structure comprising a wafer integrated circuit cut from a wafer and a die element,~~

~~the wafer integrated circuit having a set of wafer integrated circuit contact elements formed thereon,~~

~~the die element having a set of die contact elements formed thereon at locations corresponding to the integrated circuit contact elements,~~

~~respective contact elements of the wafer integrated circuit and die element being bonded to one another by means of a diffusion bond.~~

~~32. A structure as claimed in claim 31 having a plurality of die elements bonded to said wafer integrated circuit contact elements.~~