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Engineering specificity and activity of thermolysin-like proteases from *Bacillus* de Kreij, Arno

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**Engineering specificity and activity
of thermolysin-like proteases from
*Bacillus***

Arno de Kreij

Cover art.

The front cover shows the active site cleft of thermolysin with a modeled substrate, based on several crystal structures of different inhibitors bound to thermolysin. The Zn^{2+} binding ligands and the Zn^{2+} ion are shown in red. The catalytically active residues are shown in green. The S_1' residues are shown in yellow and the blue spheres represent Ca^{2+} ions. This picture is a more detailed view of Figure 4.1 on page 43. Ray tracing of this image was performed by M.L. van Roosmalen.

The back cover shows a ribbon diagram of thermolysin. The red arrows represent β -sheets, whereas the blue helices represent α -helices. The centre shows the central α -helix which is the bottom of the active site cleft with the catalytic Zn^{2+} ion (large sphere). Four Ca^{2+} ions (small spheres), involved in stability, are also shown. This picture is a colour representation of Figure 2.2 on page 26.

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**Engineering specificity and activity
of thermolysin-like proteases from
*Bacillus***

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in het openbaar te verdedigen op
vrijdag 6 juli 2001
om 16.00 uur

door

Arno de Kreij

geboren op 27 maart 1970
te Capelle aan den IJssel

Promotores: Prof. dr. G. Venema.
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Prof. dr. B.W. Dijkstra.

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