

MASTER

Inelastische botsingen van geëxciteerde neonatomen : een terreinverkenning

Beijers, J.P.M.

Award date:
1983

[Link to publication](#)

Disclaimer

This document contains a student thesis (bachelor's or master's), as authored by a student at Eindhoven University of Technology. Student theses are made available in the TU/e repository upon obtaining the required degree. The grade received is not published on the document as presented in the repository. The required complexity or quality of research of student theses may vary by program, and the required minimum study period may vary in duration.

General rights

Copyright and moral rights for the publications made accessible in the public portal are retained by the authors and/or other copyright owners and it is a condition of accessing publications that users recognise and abide by the legal requirements associated with these rights.

- Users may download and print one copy of any publication from the public portal for the purpose of private study or research.
- You may not further distribute the material or use it for any profit-making activity or commercial gain

Potentiaalkurven voor het systeem

$Ne^{**} + Ne/He$

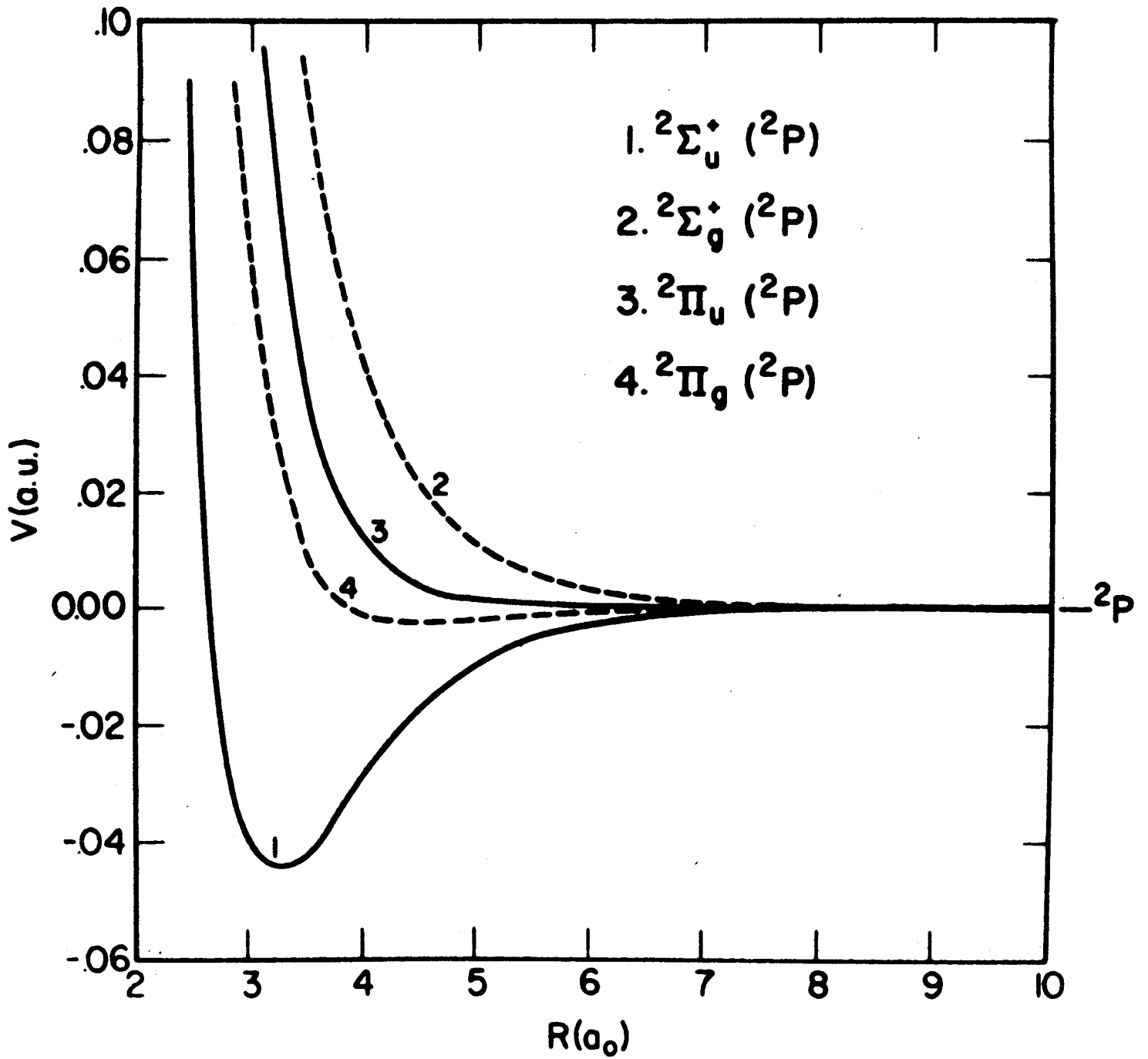
J.P.M. Beijers

Bijlage bij het rapport VDF/NO 83-09

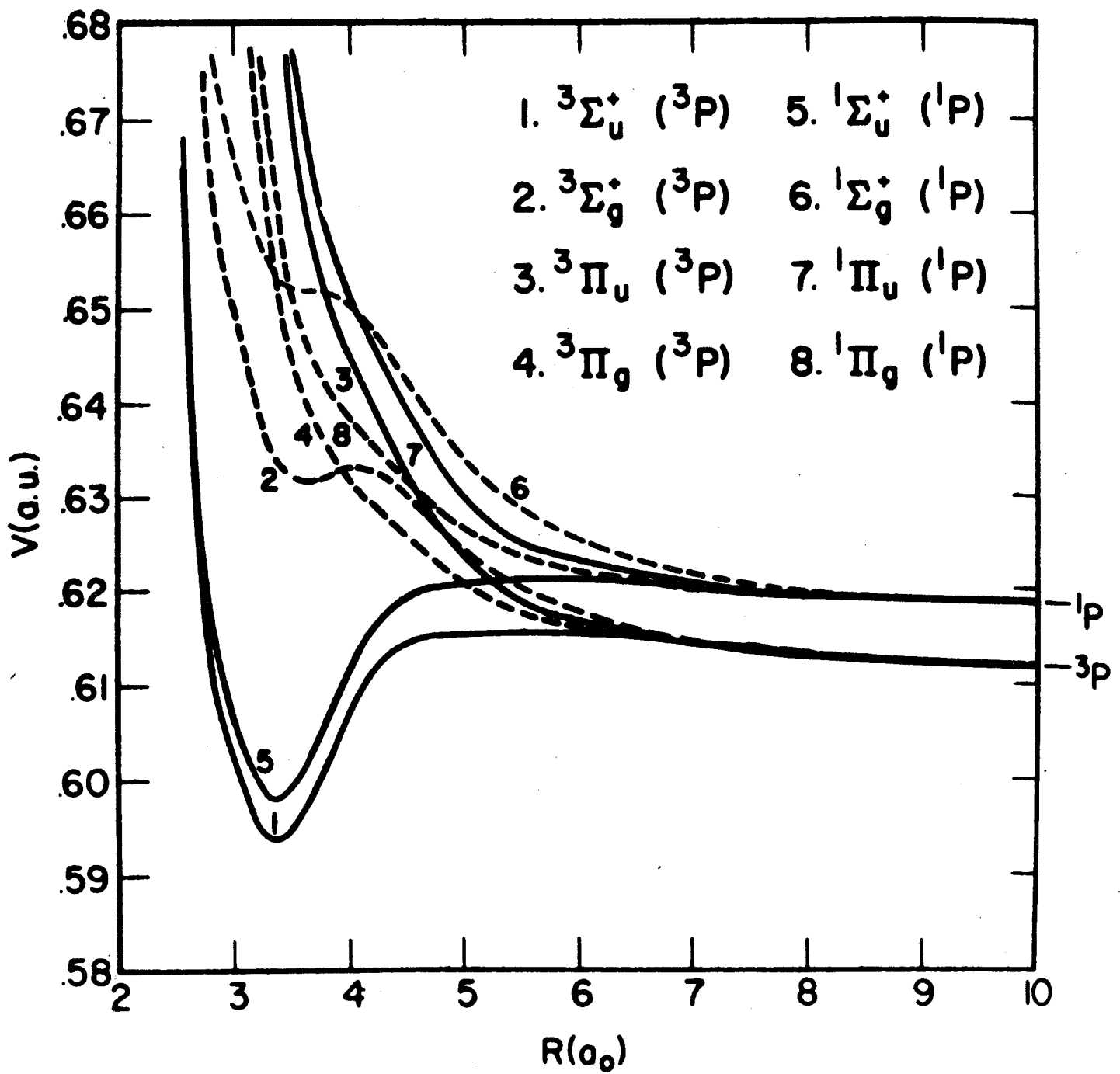
Inhoud

Deze bijlage bevat een aantal potentiaalkurven van het systeem $Ne^{*(*)} + Ne(He)$, zowel voor de $2p^5 3s$ - als $2p^5 3p$ - configuratie. De figuren 1 t/m 6 zijn berekend m.v.b. een ab-initio methode door Cohen en Schneider (Coh74). De figuren 7 en 8 zijn berekend door Hennecart (Hen82) m.v.b. een modelpotentiaalmethode. Beide methoden worden uitvoerig beschreven in het rapport VDF/NO 83-09.

- (Coh74) Cohen, J.S. en Schneider, B., J. Chem. Phys., 61 (1974) 3230
(Hen82) Hennecart, D., Thèse, Université de Caen (1982)

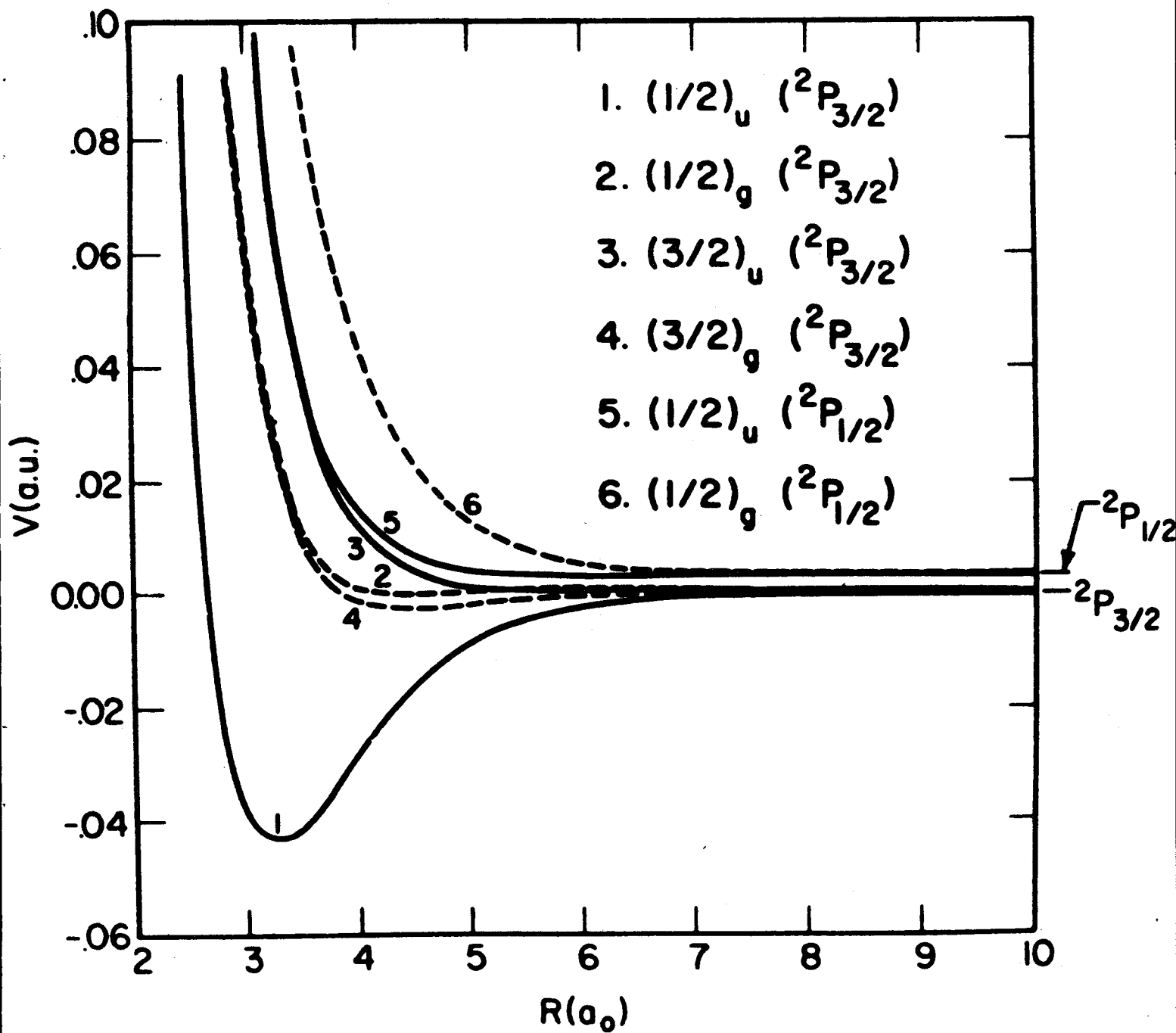


Figuur 1 Ne_2^+ -potentiaalkurven zonder spin-baan wisselwerking

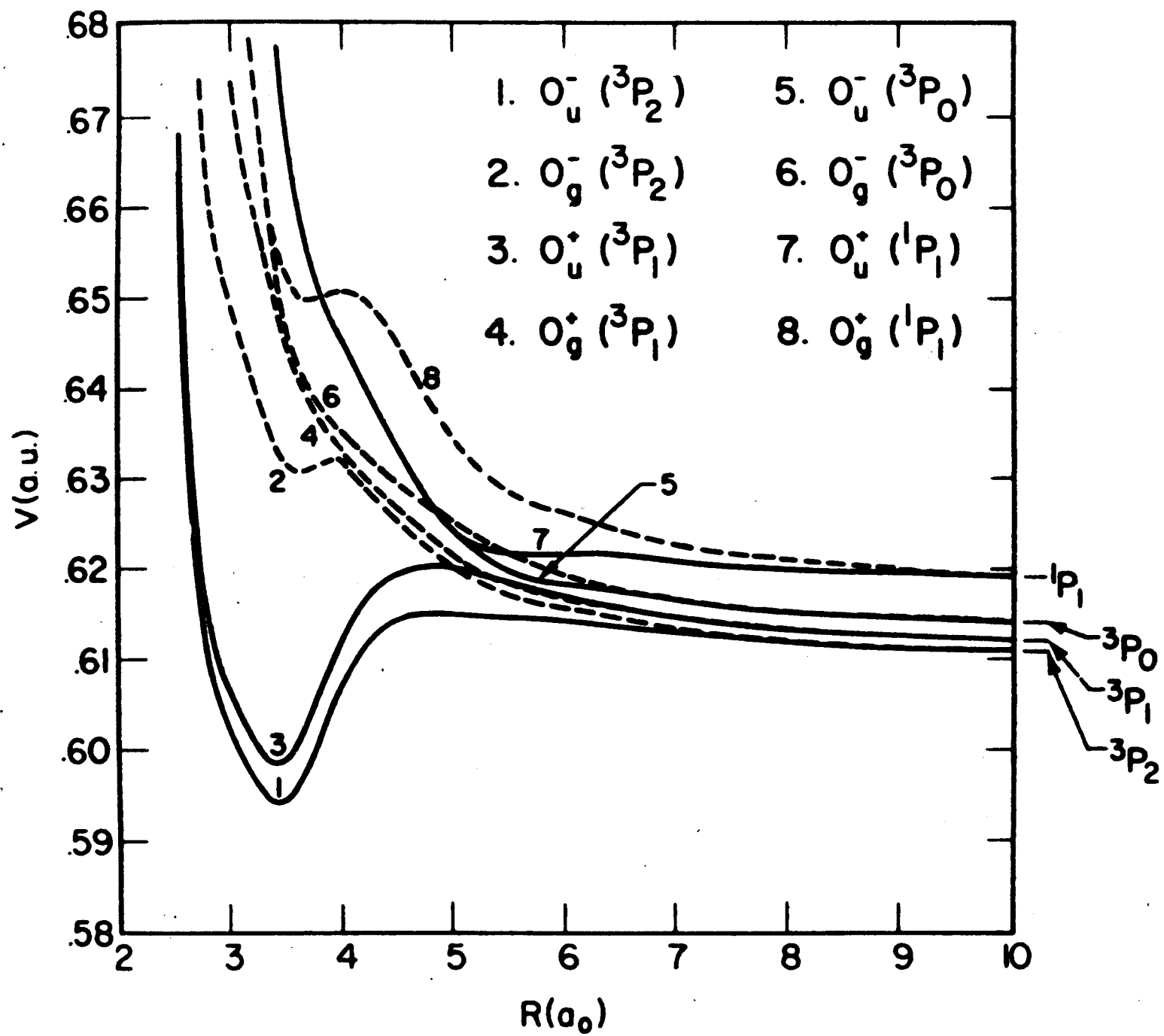


Figuur 2

Potentiaalkurven voor het systeem $Ne(2p^5 3s) + Ne$
 zonder spin-baan wisselwerking

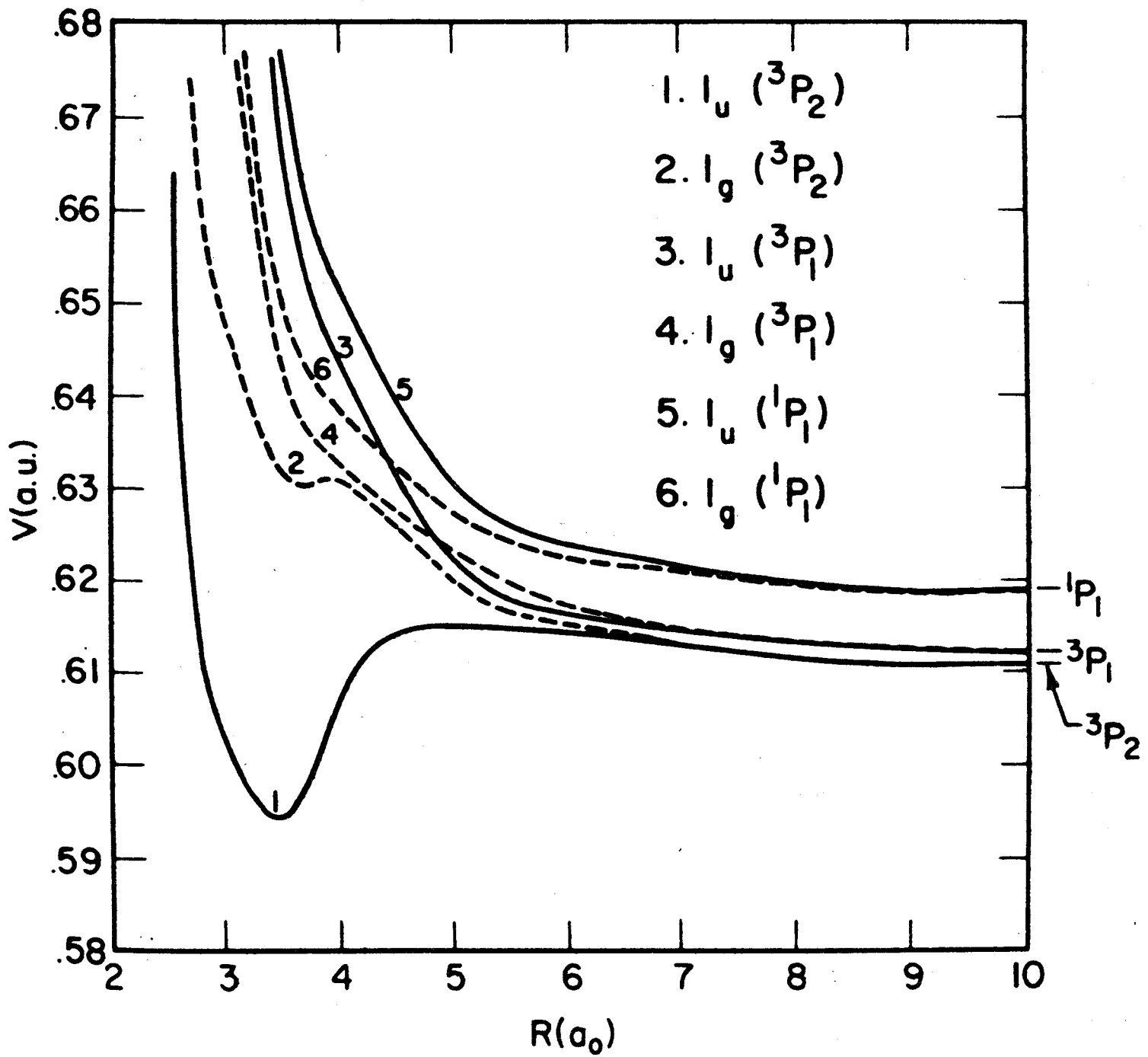


Figuur 3 Ne_2^+ -potentiaalkurven met spin-baan wisselwerking



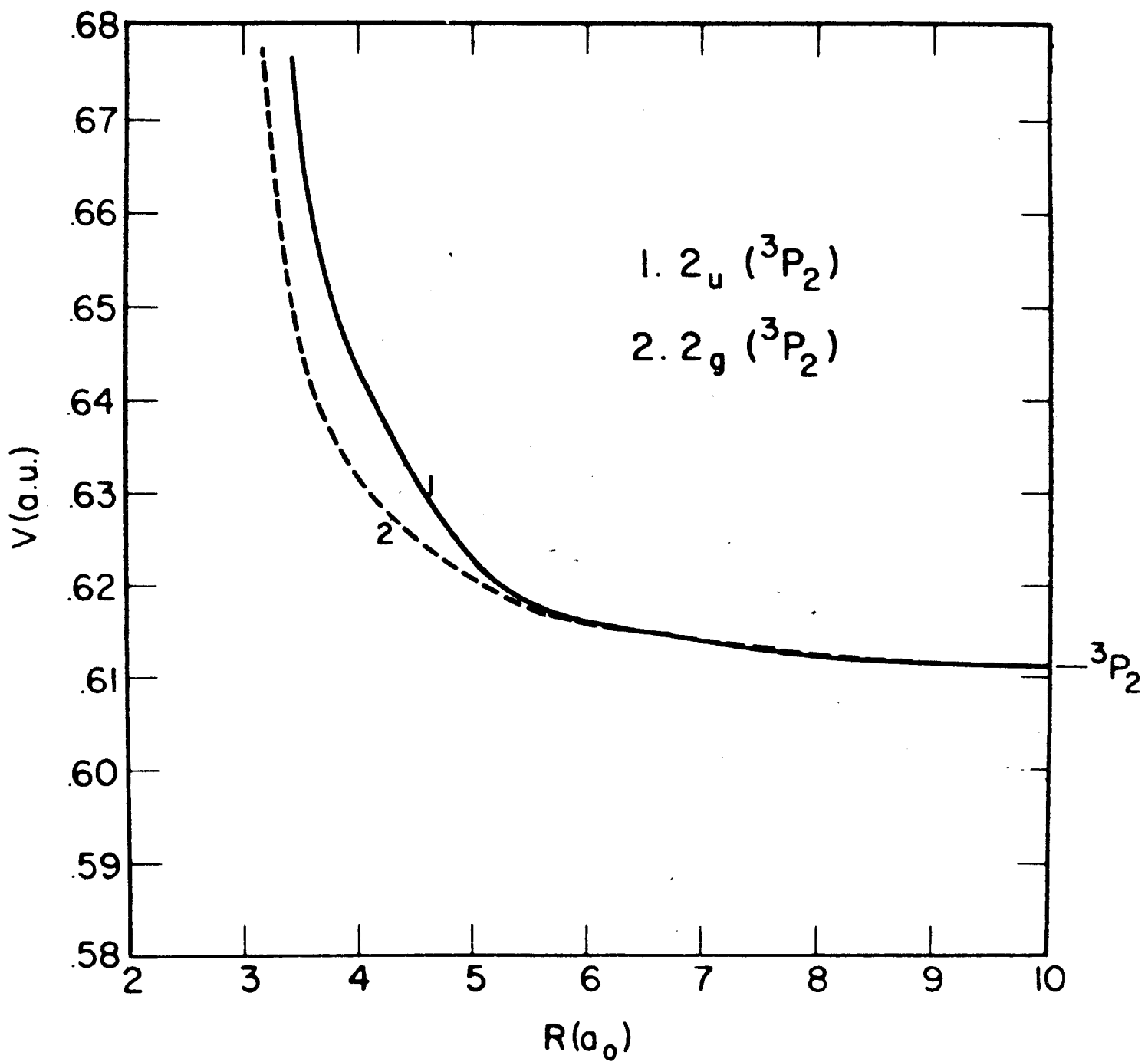
Figuur 4

Potentialcurves voor het systeem $Ne^{*(*)}(2p^5 3s) + Ne$
 met $\Omega = 0$ (met spin-baan wisselwerking)



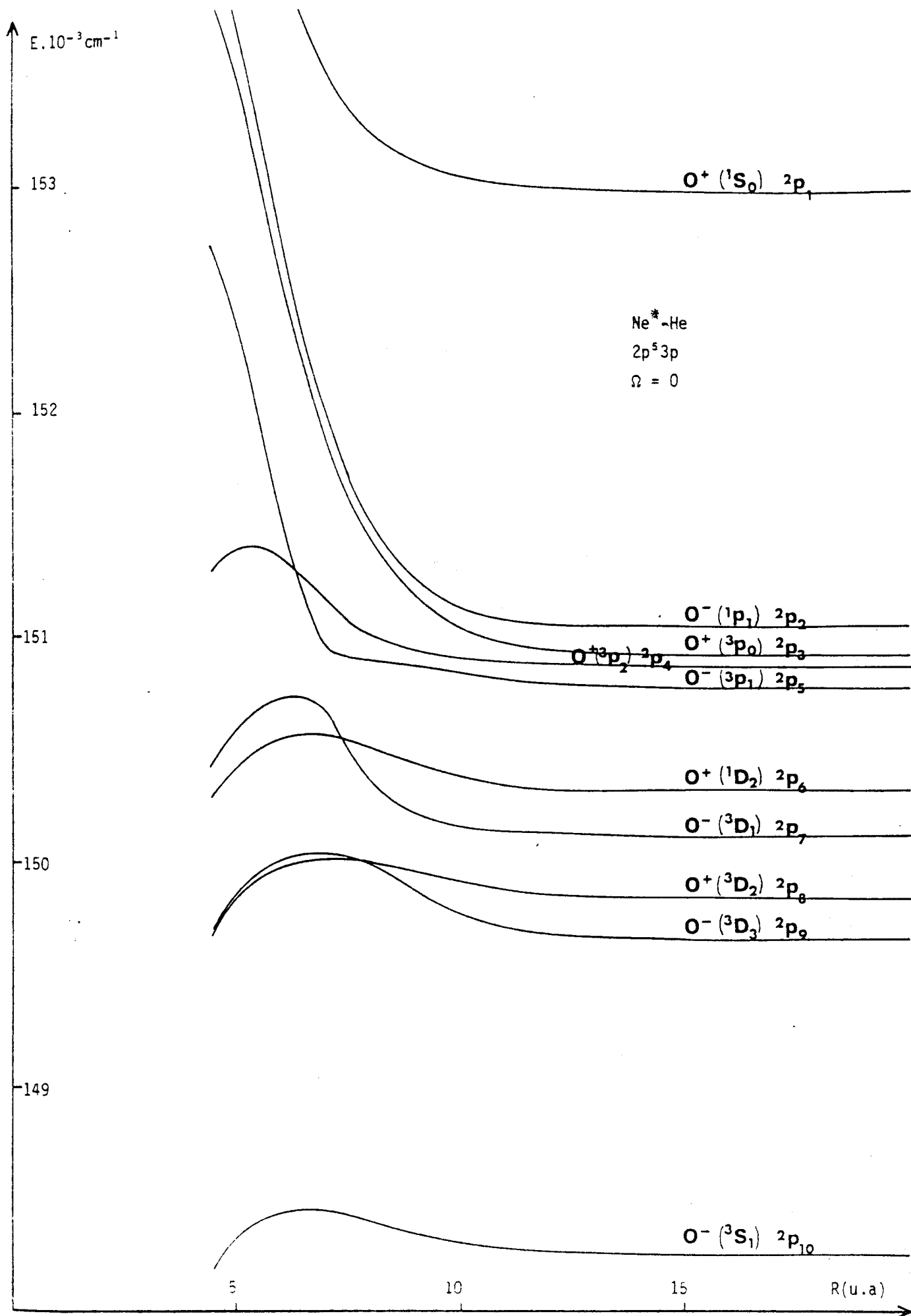
Figuur 5

Potentiaalkurven voor het systeem $Ne^{*(4)}(2p^5 3s) + Ne$
 met $\Omega = 1$ (met spin-baan wisselwerking)

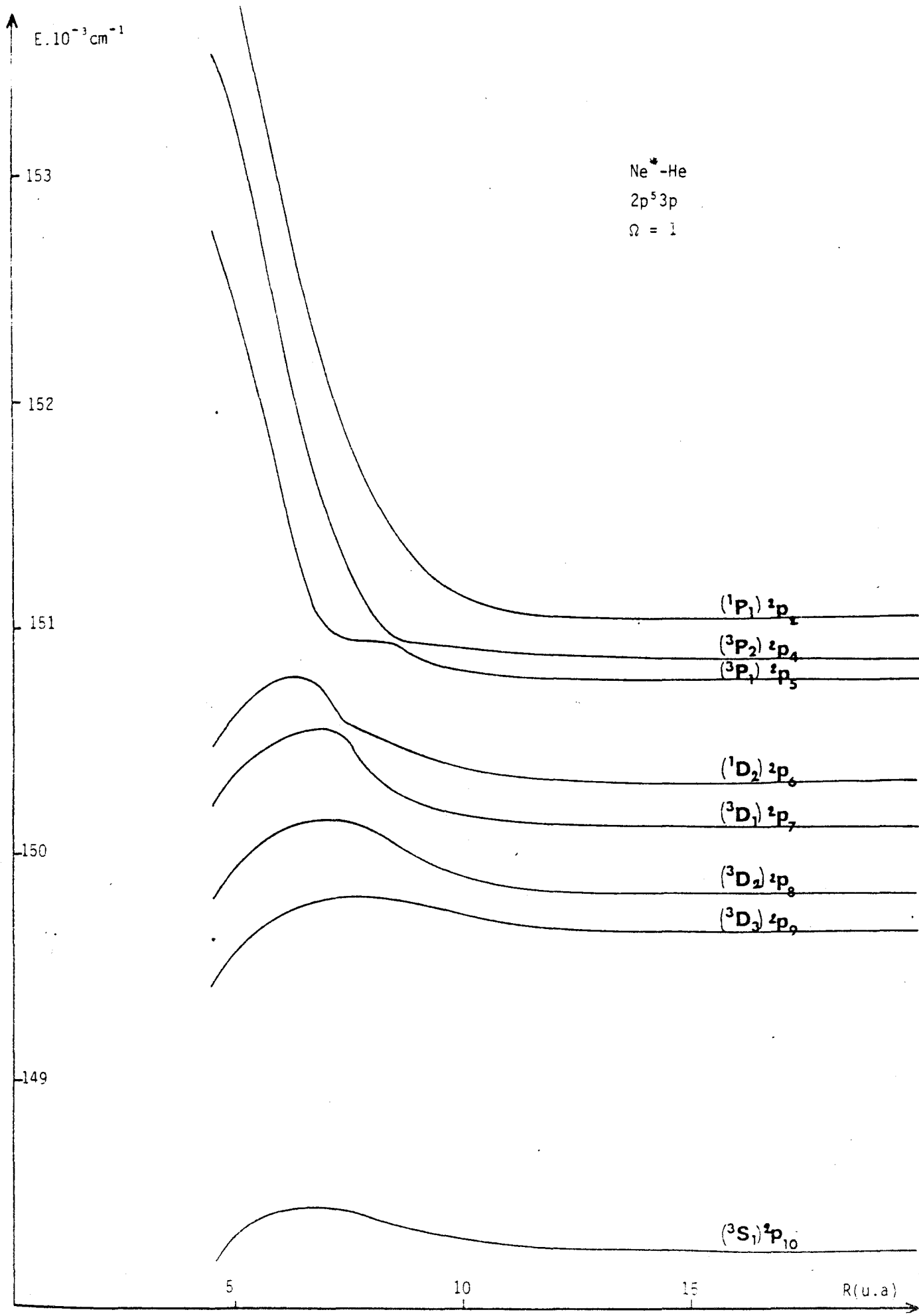


Figuur 6

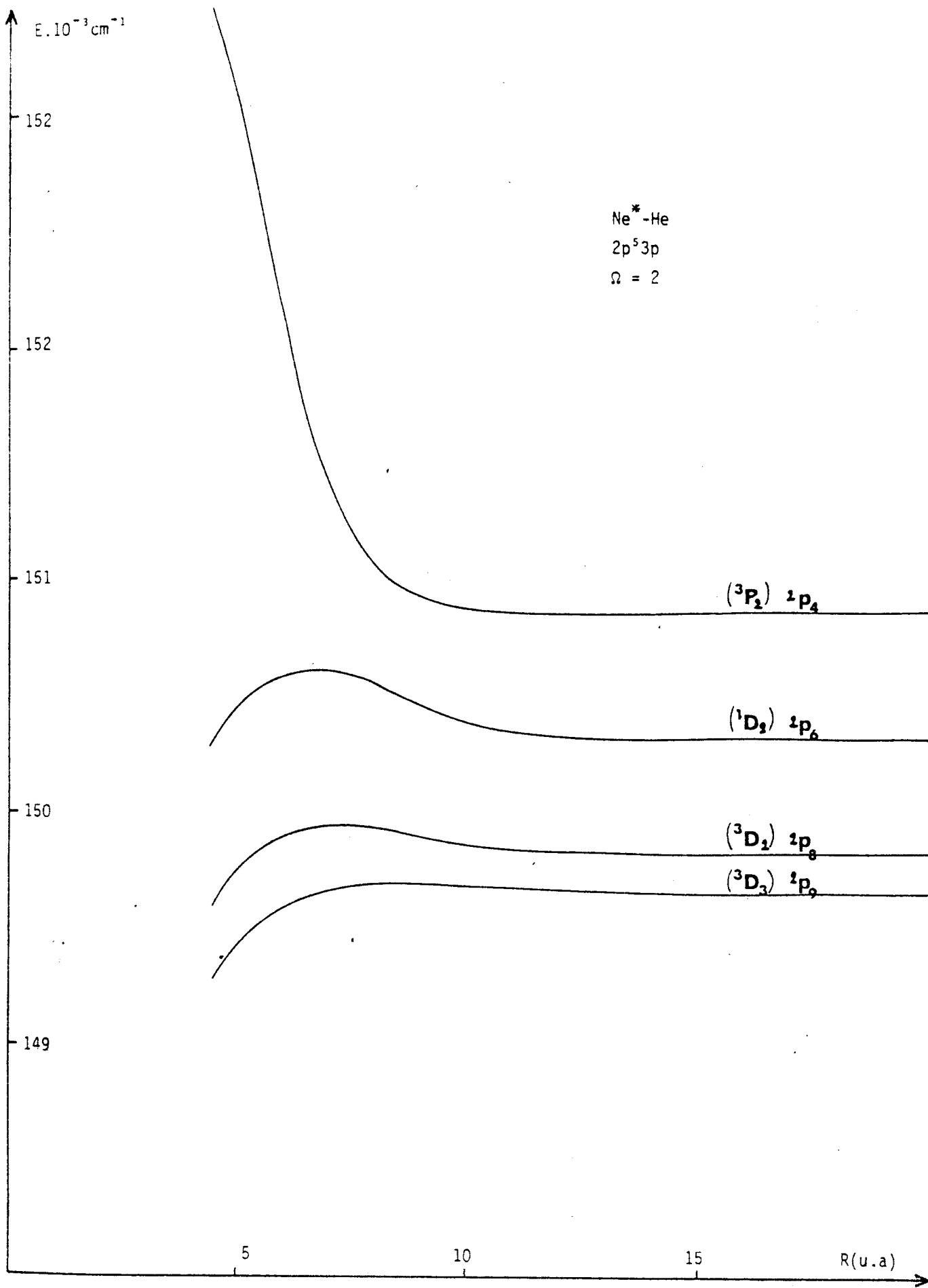
Potentiaalkurven voor het systeem $Ne^{*(*)} (2p^5 3s) + Ne$
met $\mathcal{L} = 2$ (met spin-baan wisselwerking)



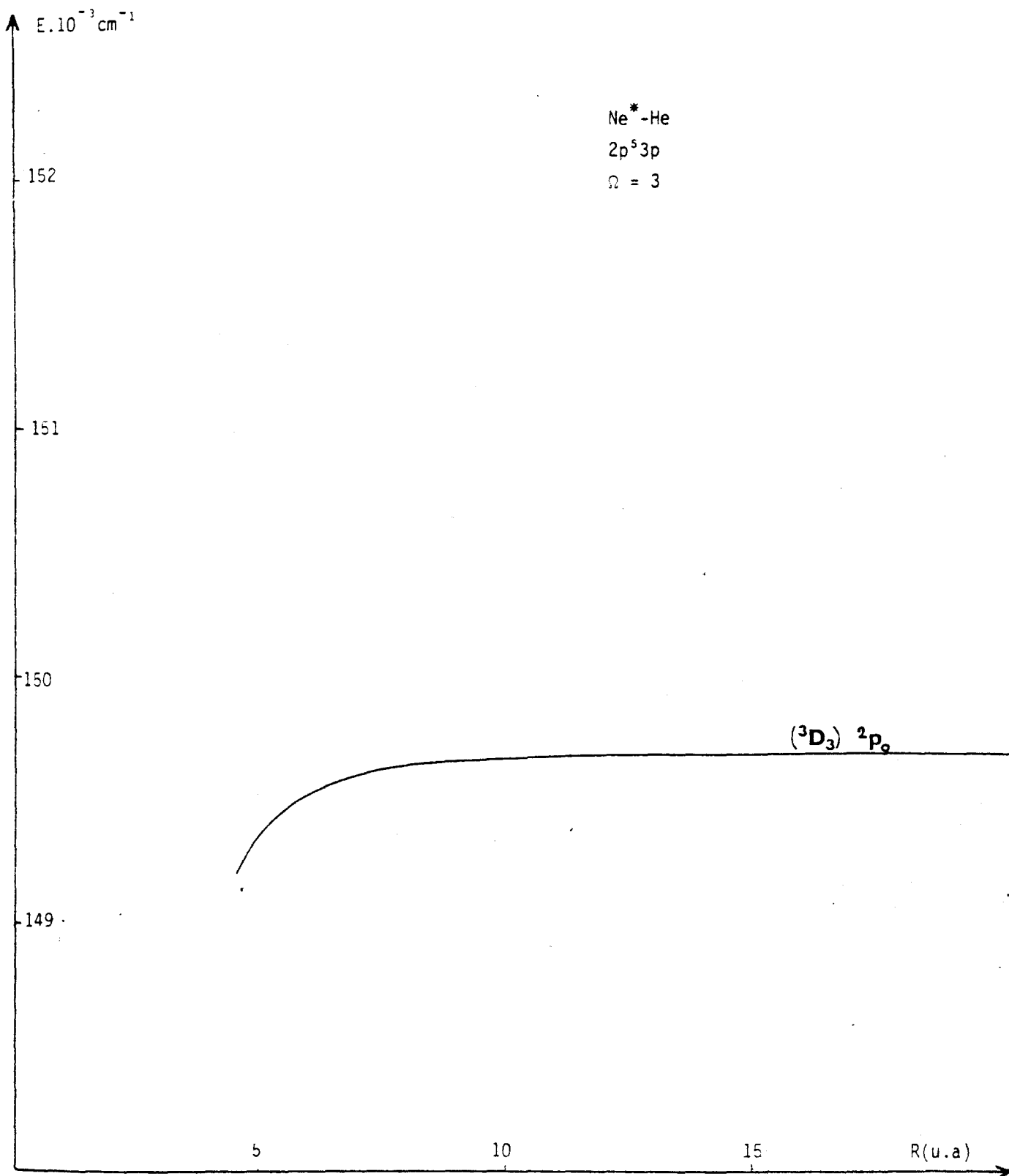
Figuur 7-1



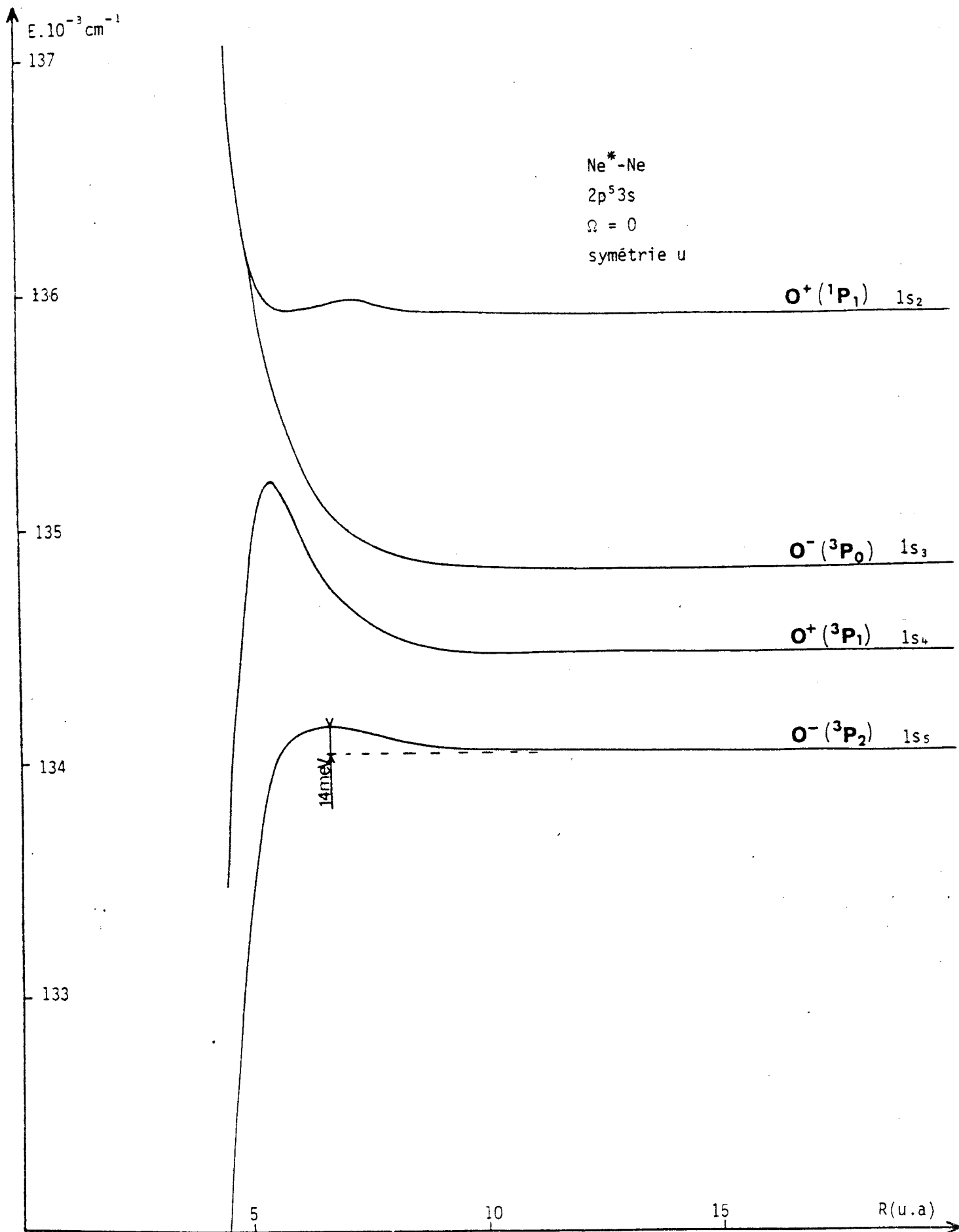
Figuur 7-2



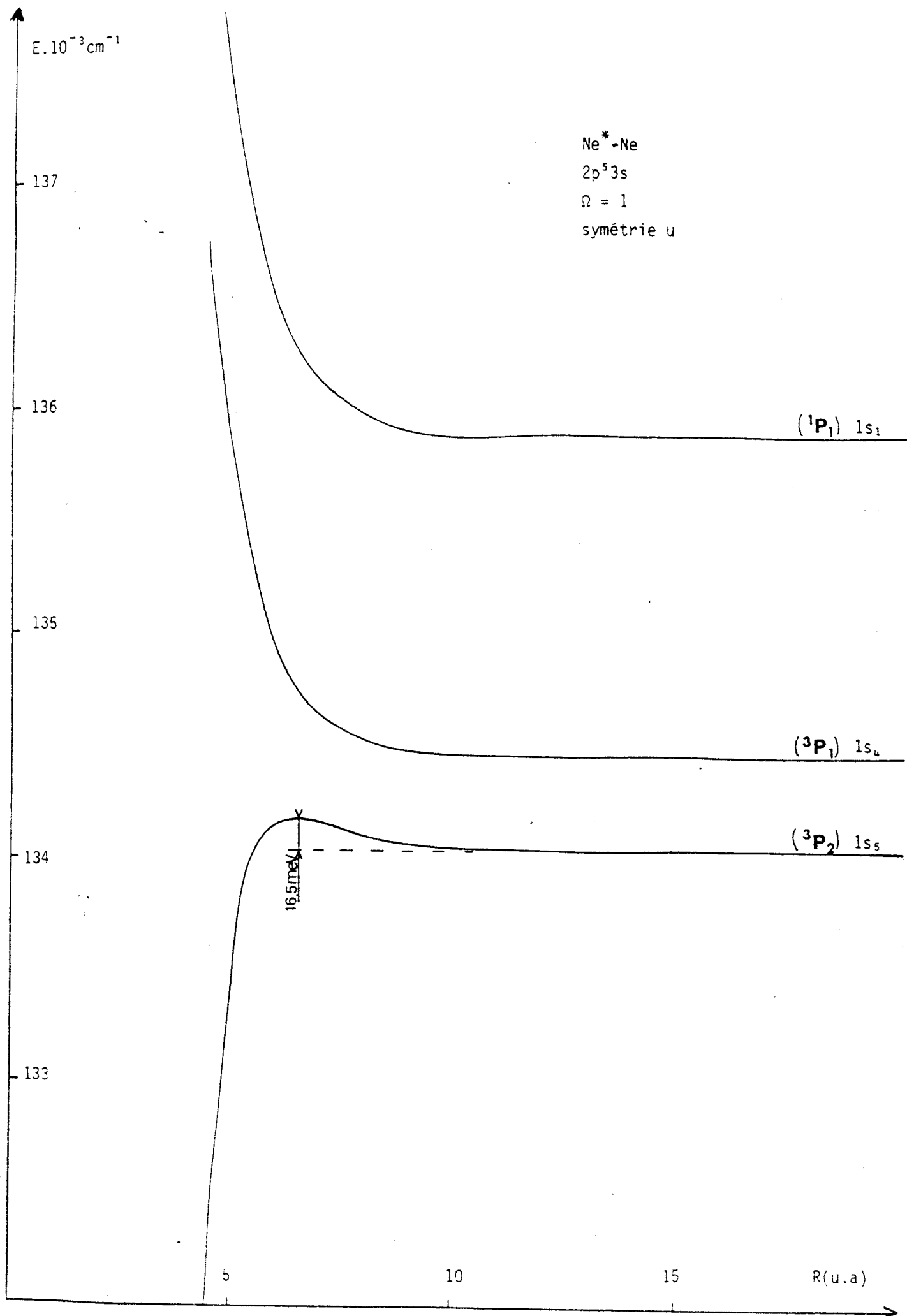
Figuur 7-3



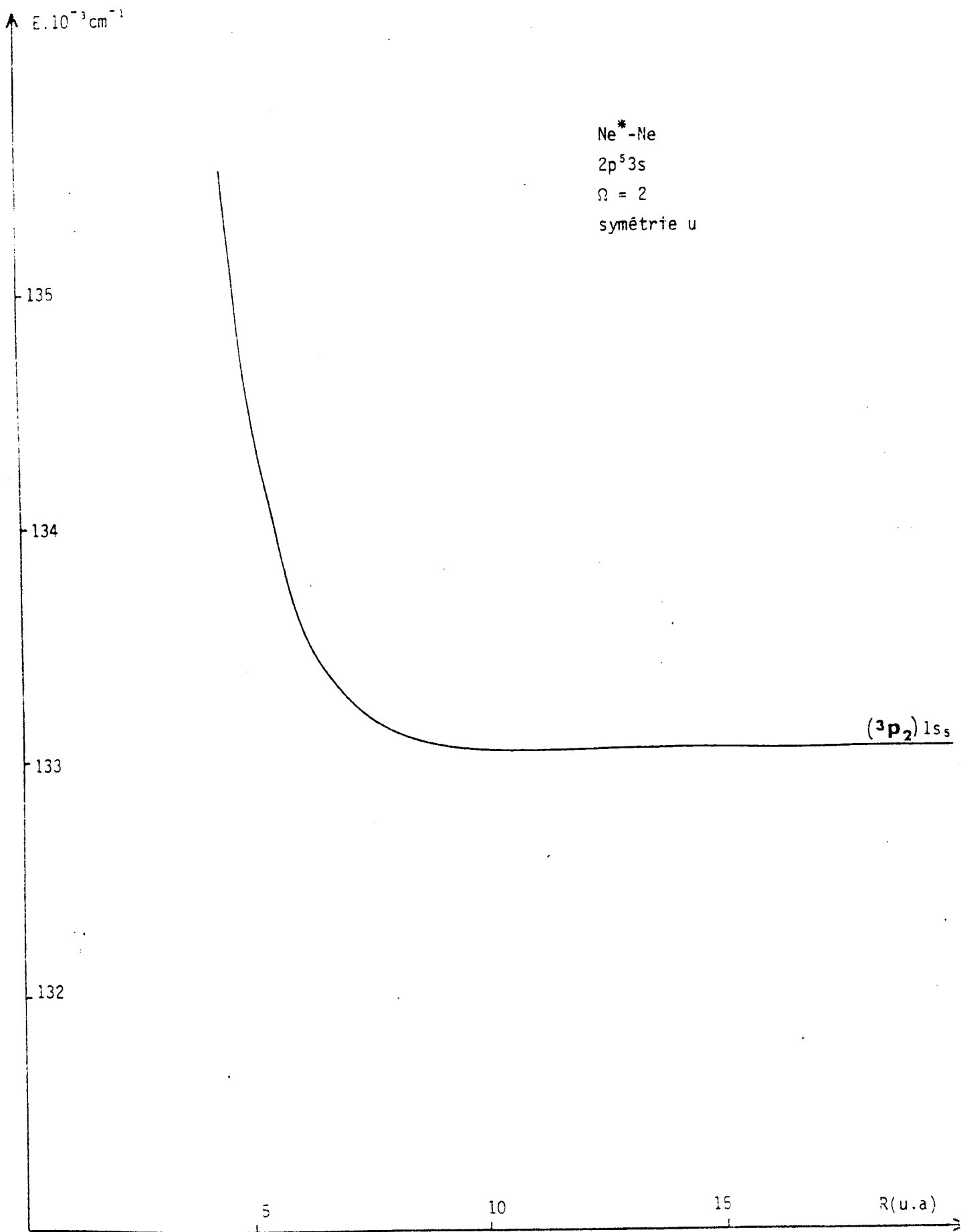
Figuur 7-4



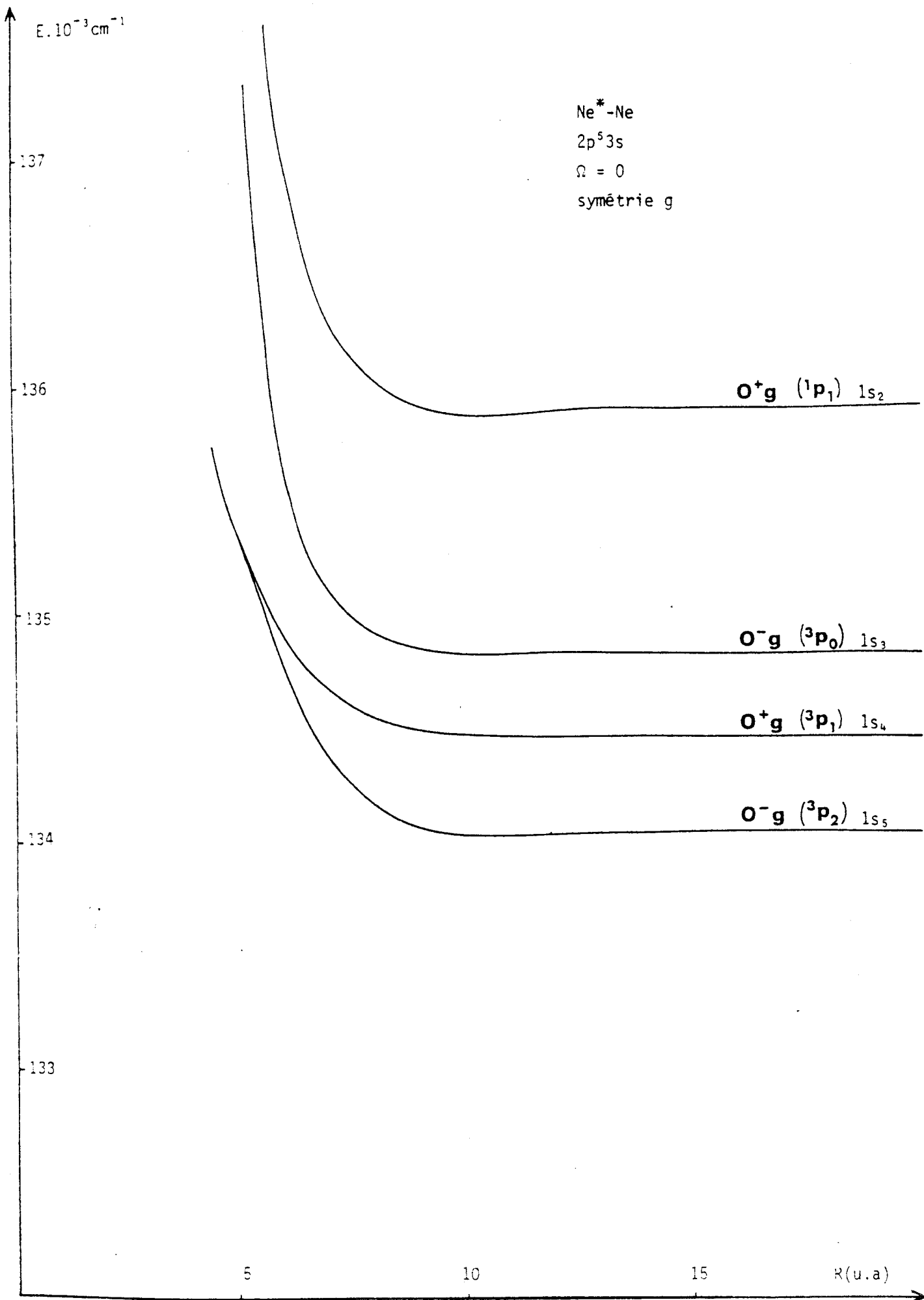
Figuur 8-1



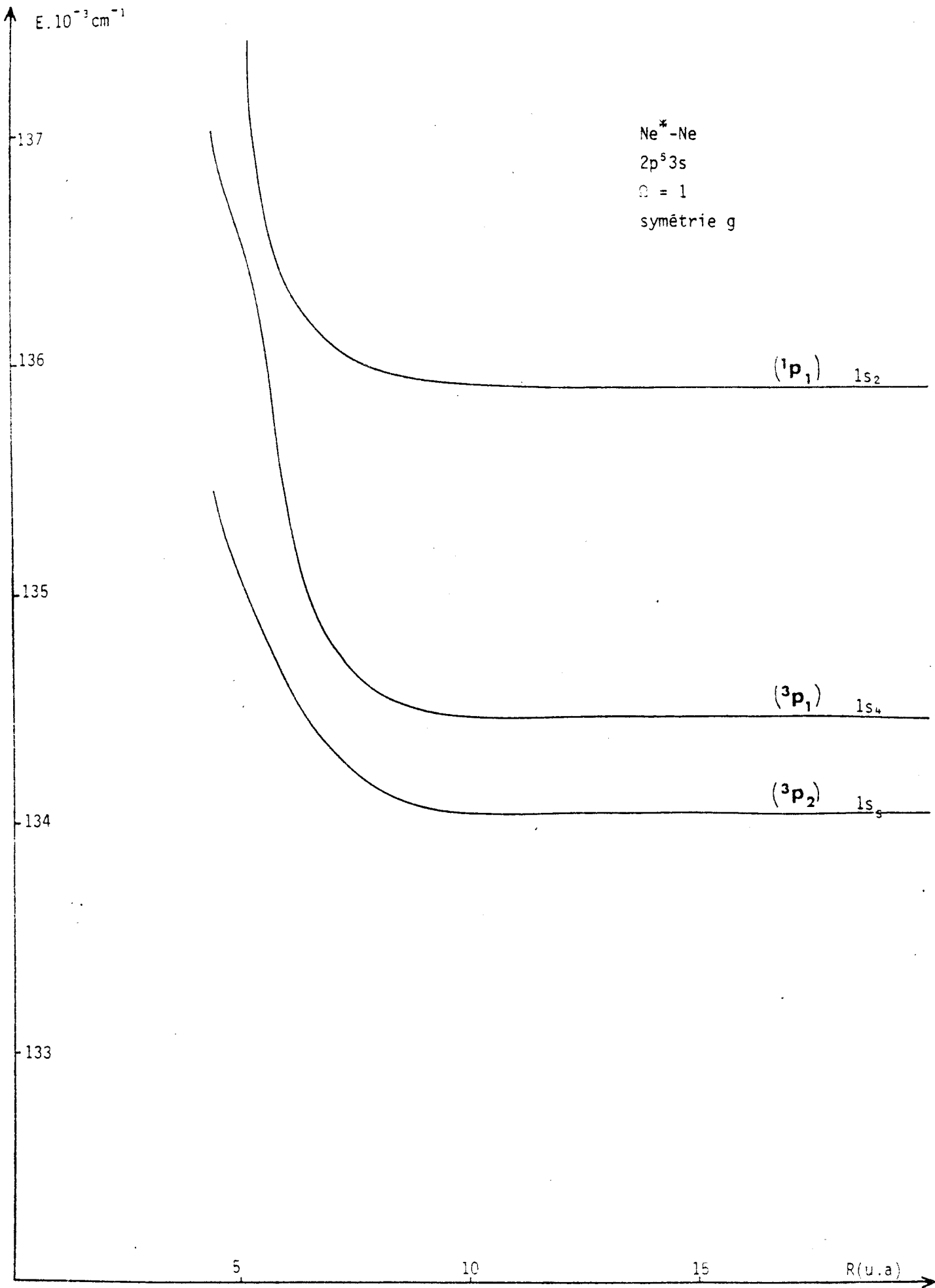
Figuur 8-2



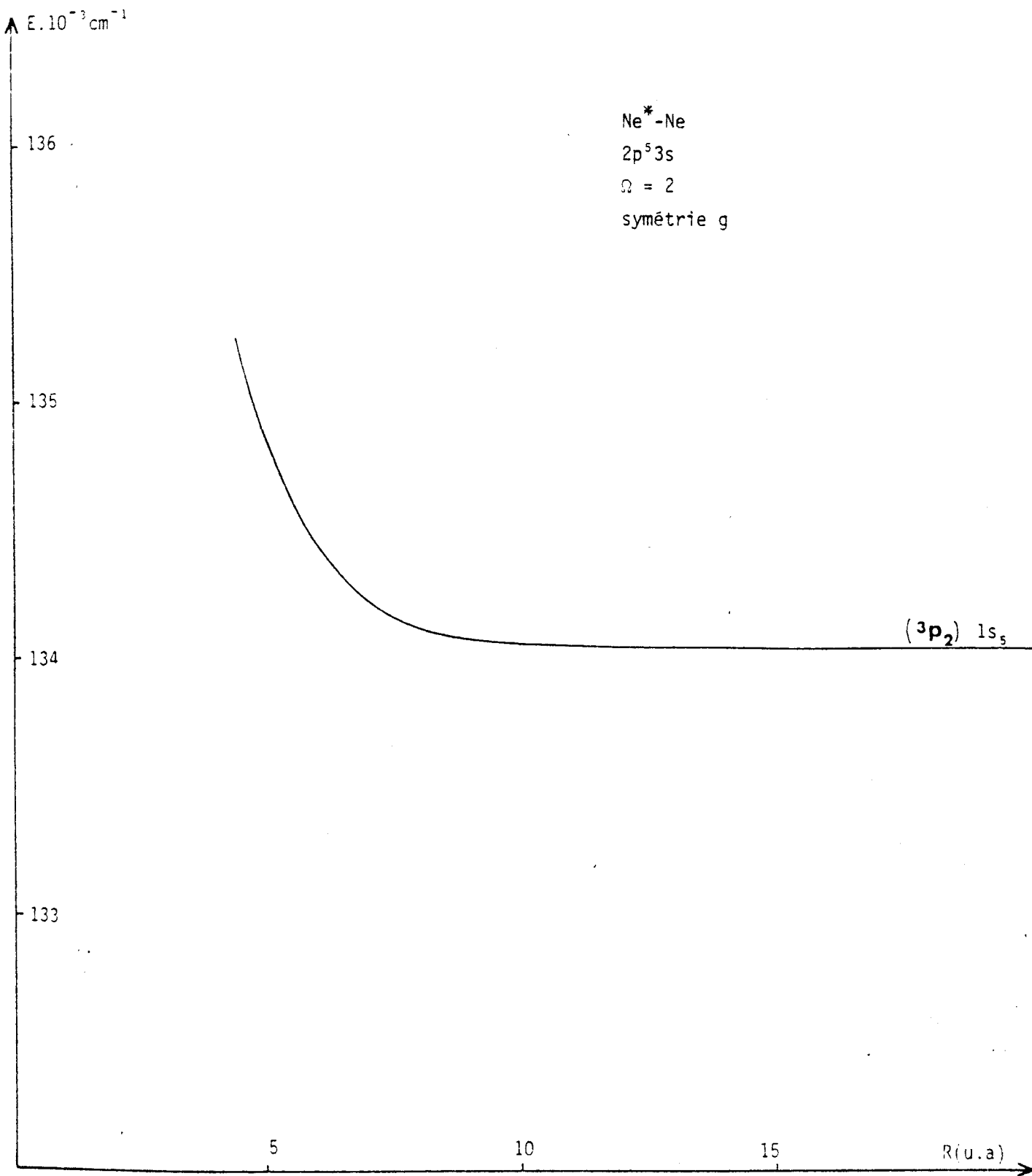
Figuur 8-3



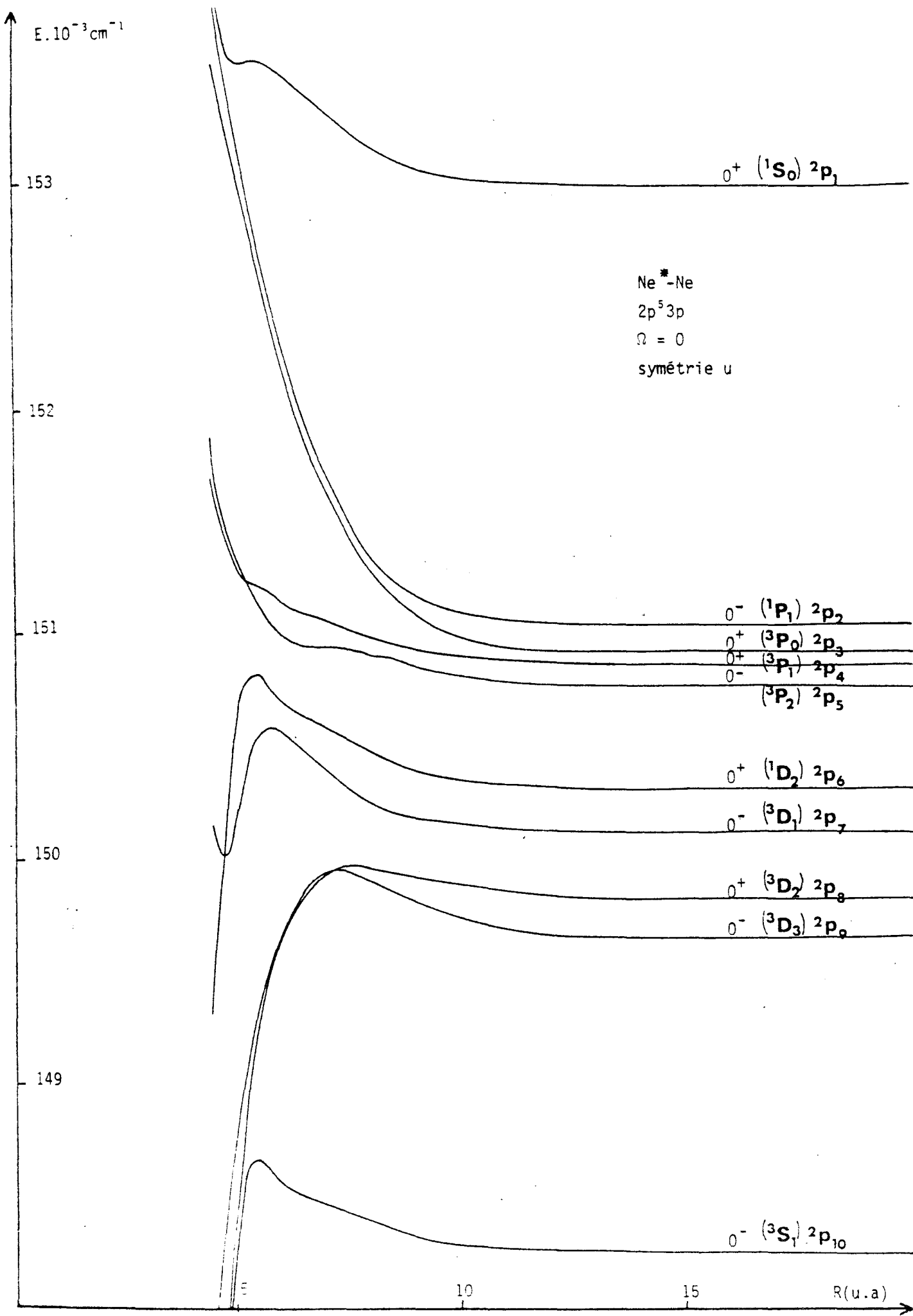
Figuur 8-4



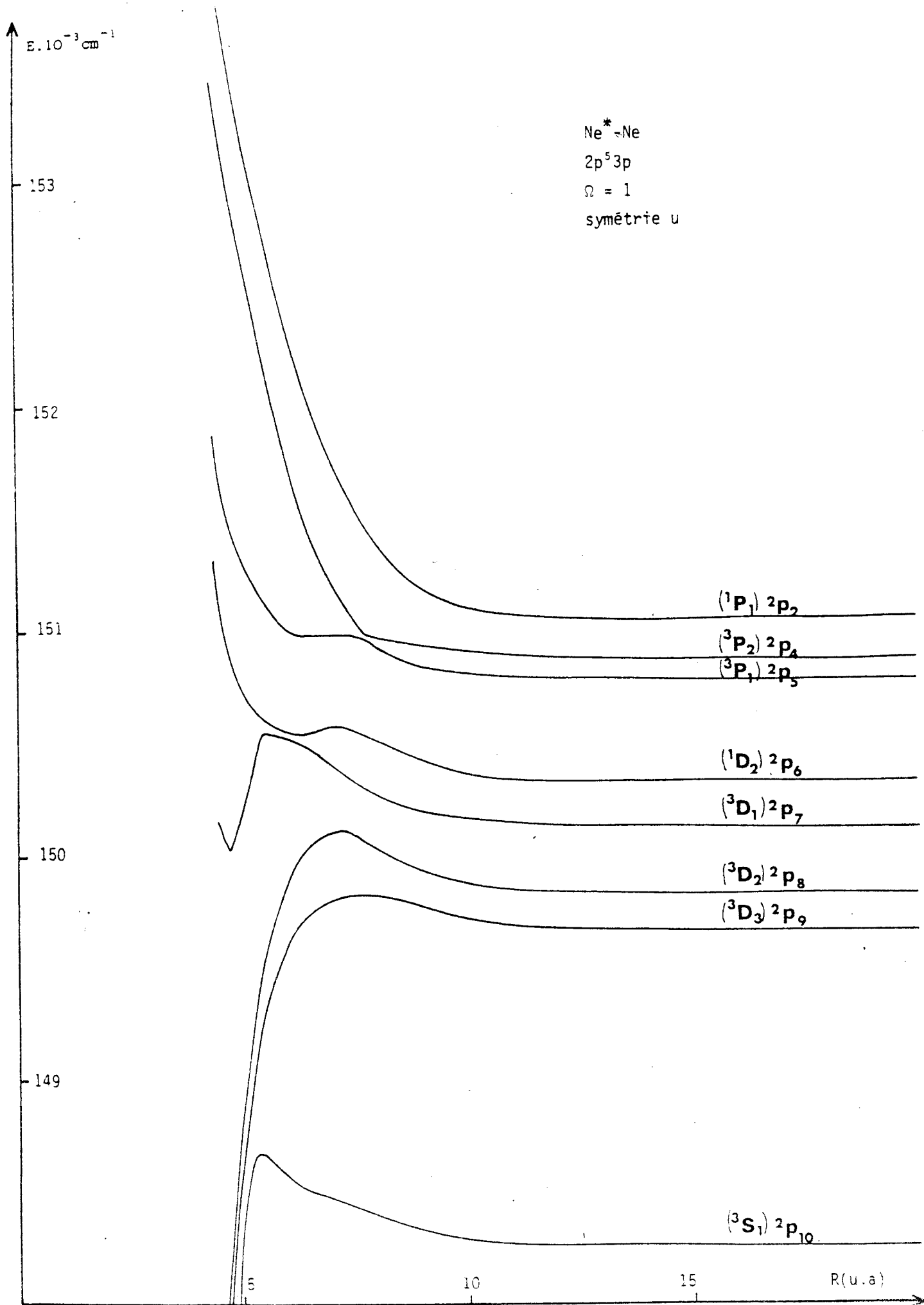
Figuur 8-5



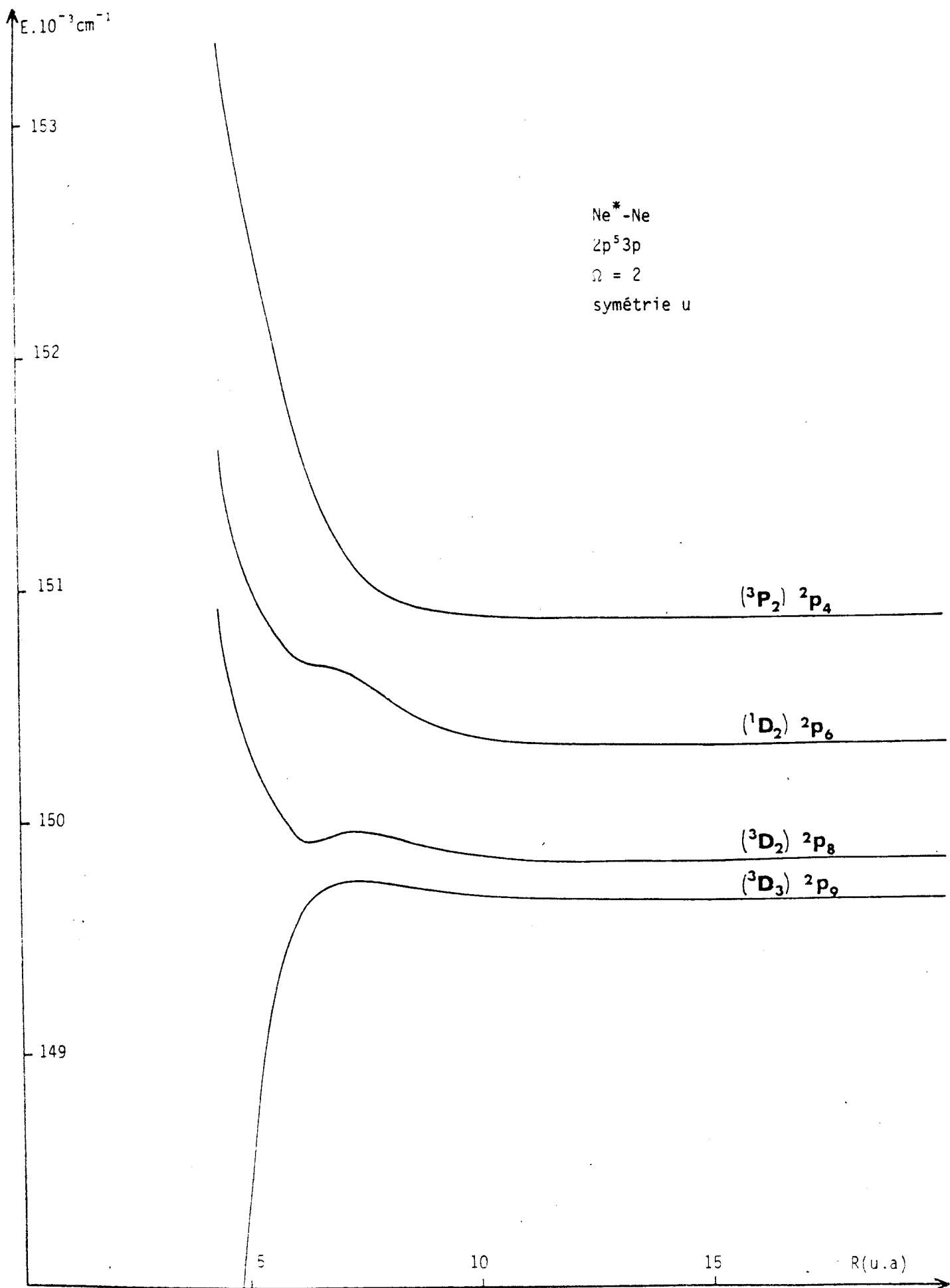
Figuur 8-6



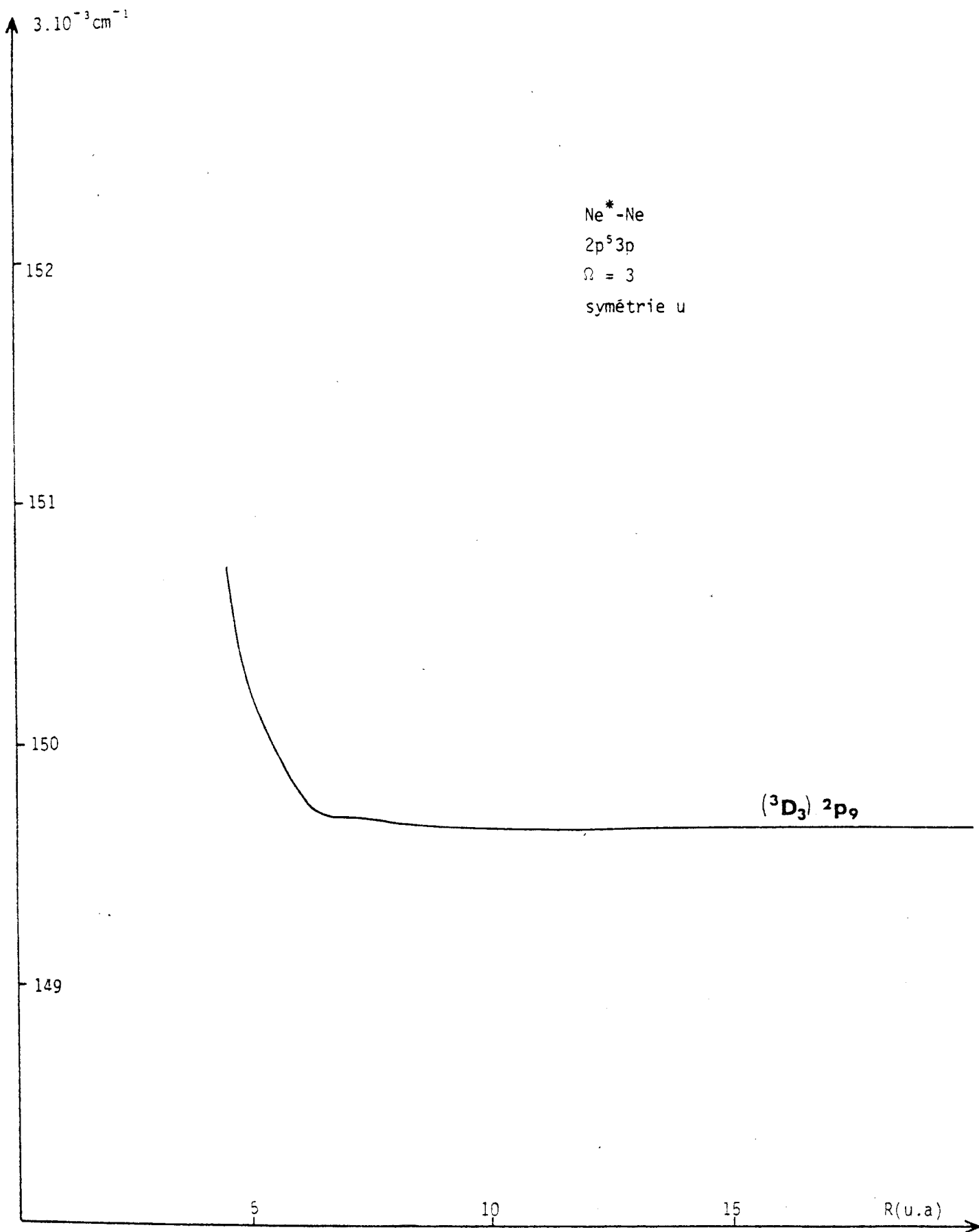
Figuur 8-7



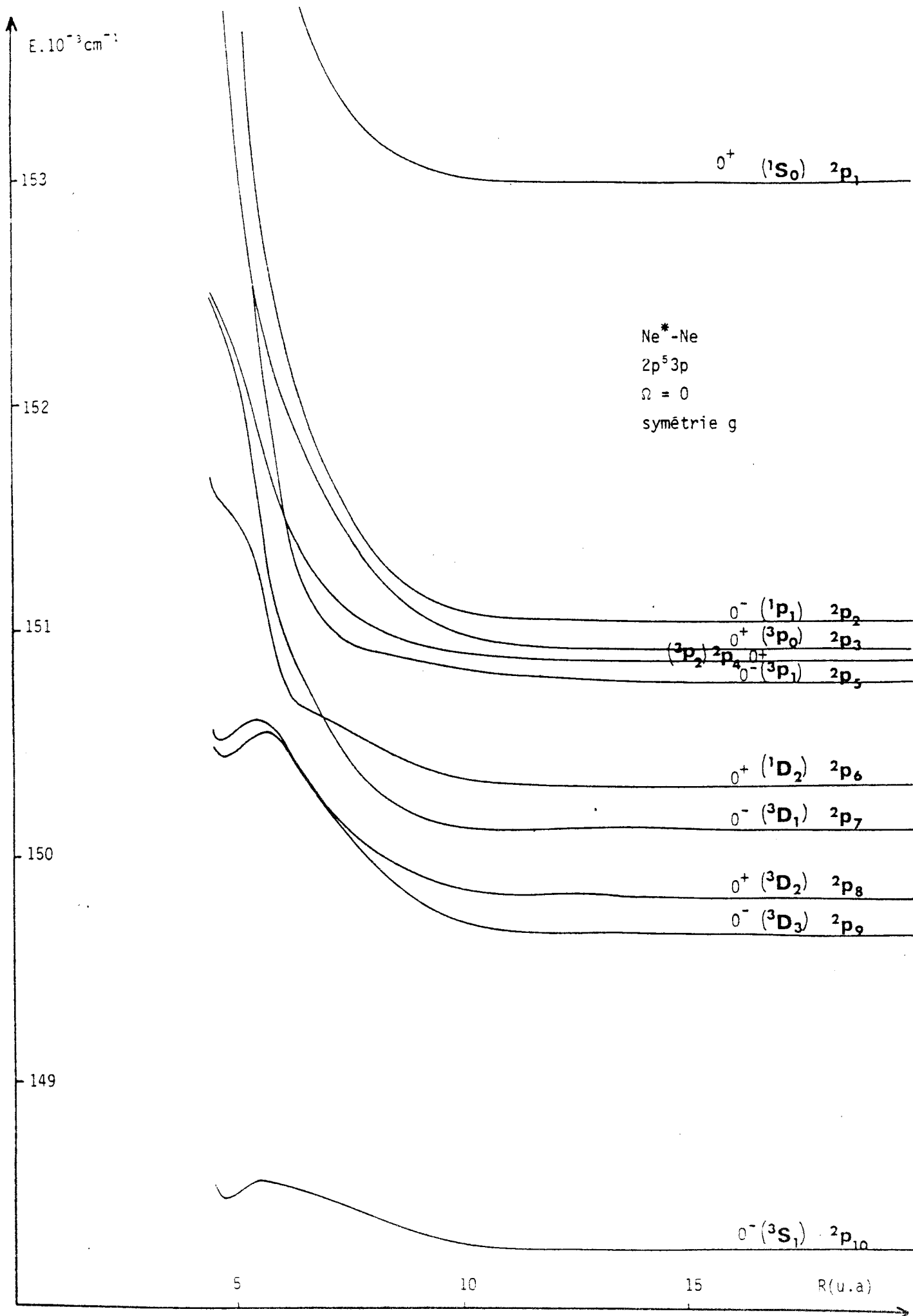
Figuur 8-8



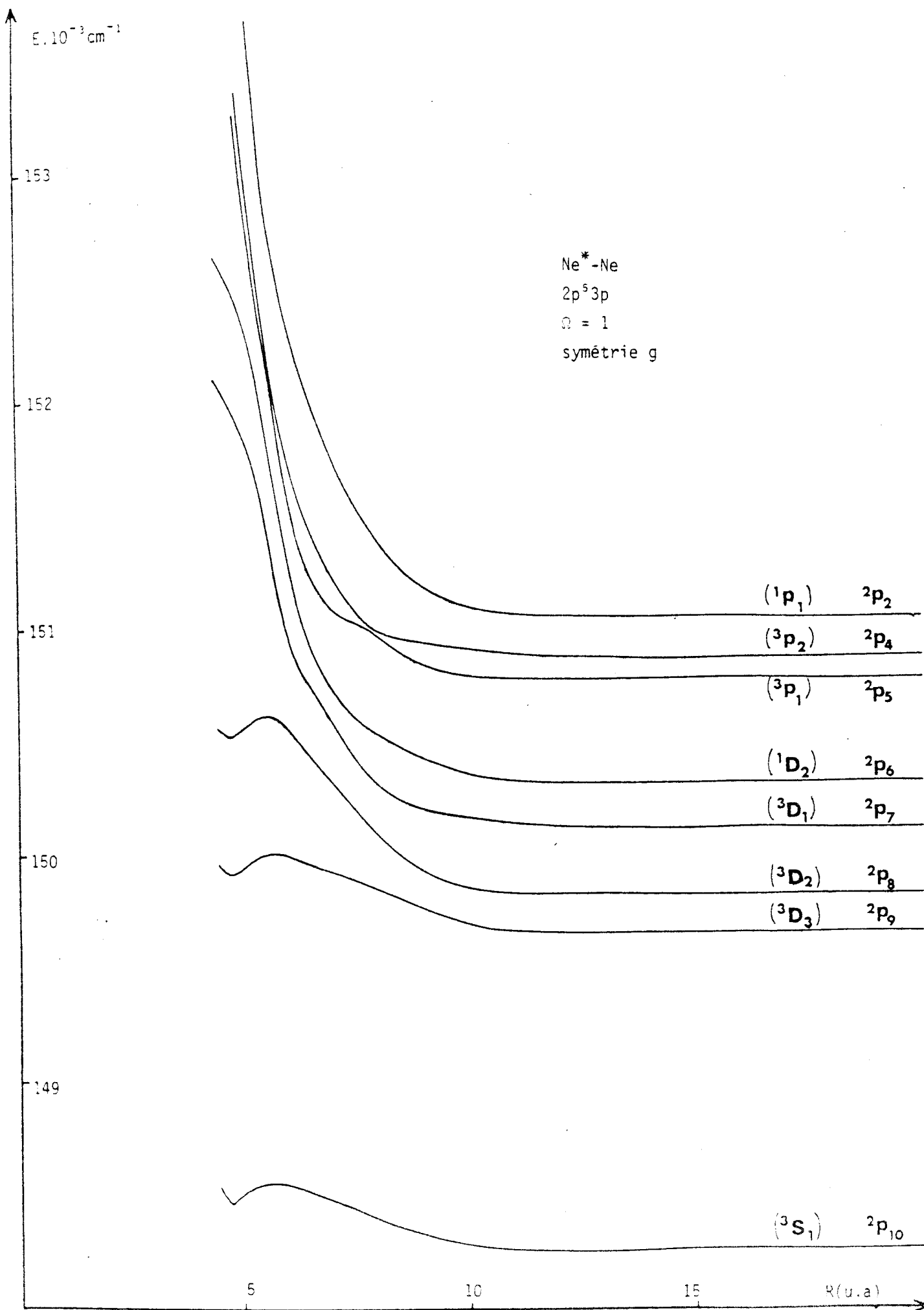
Figuur 8-9



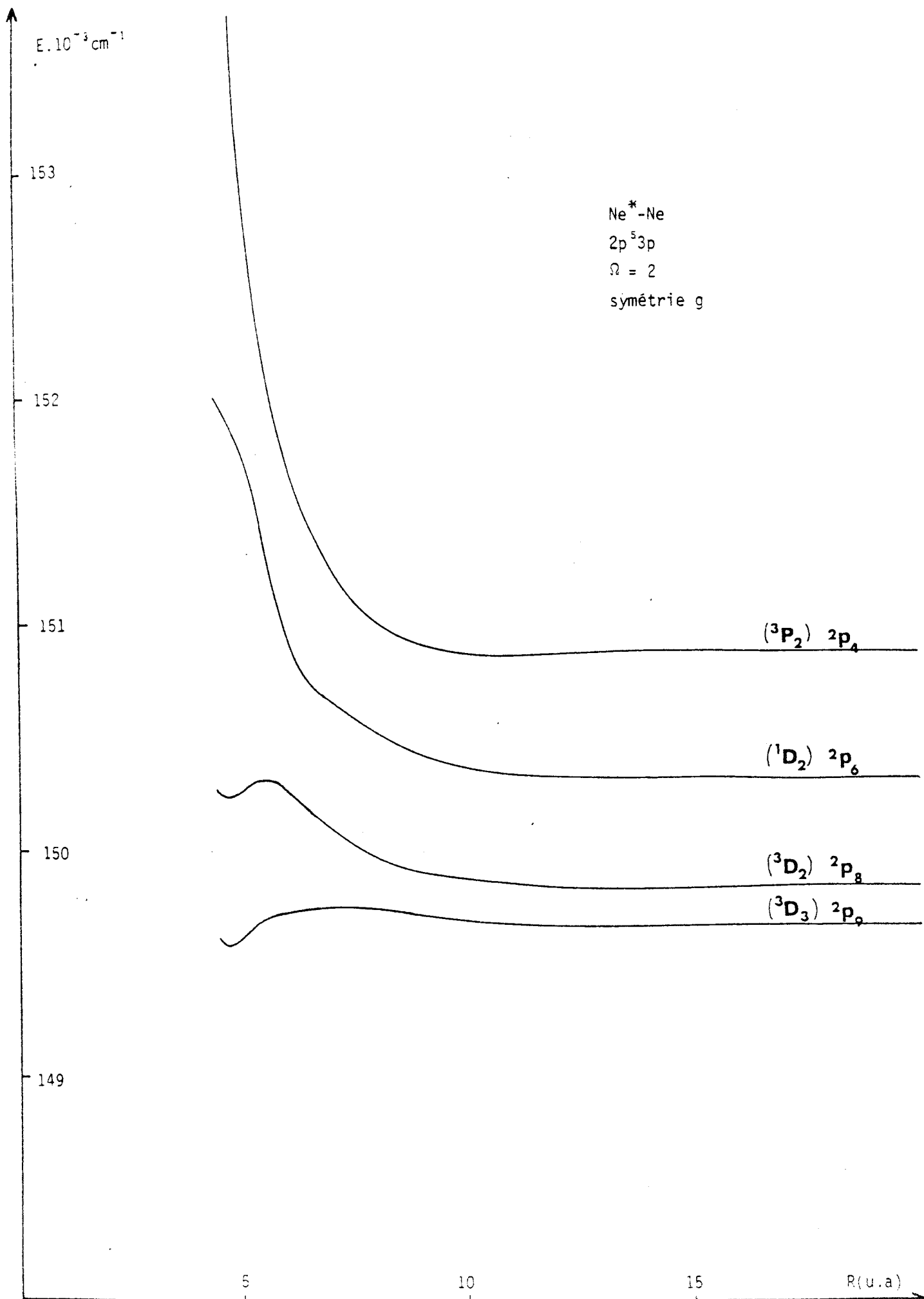
Figuur 8-10



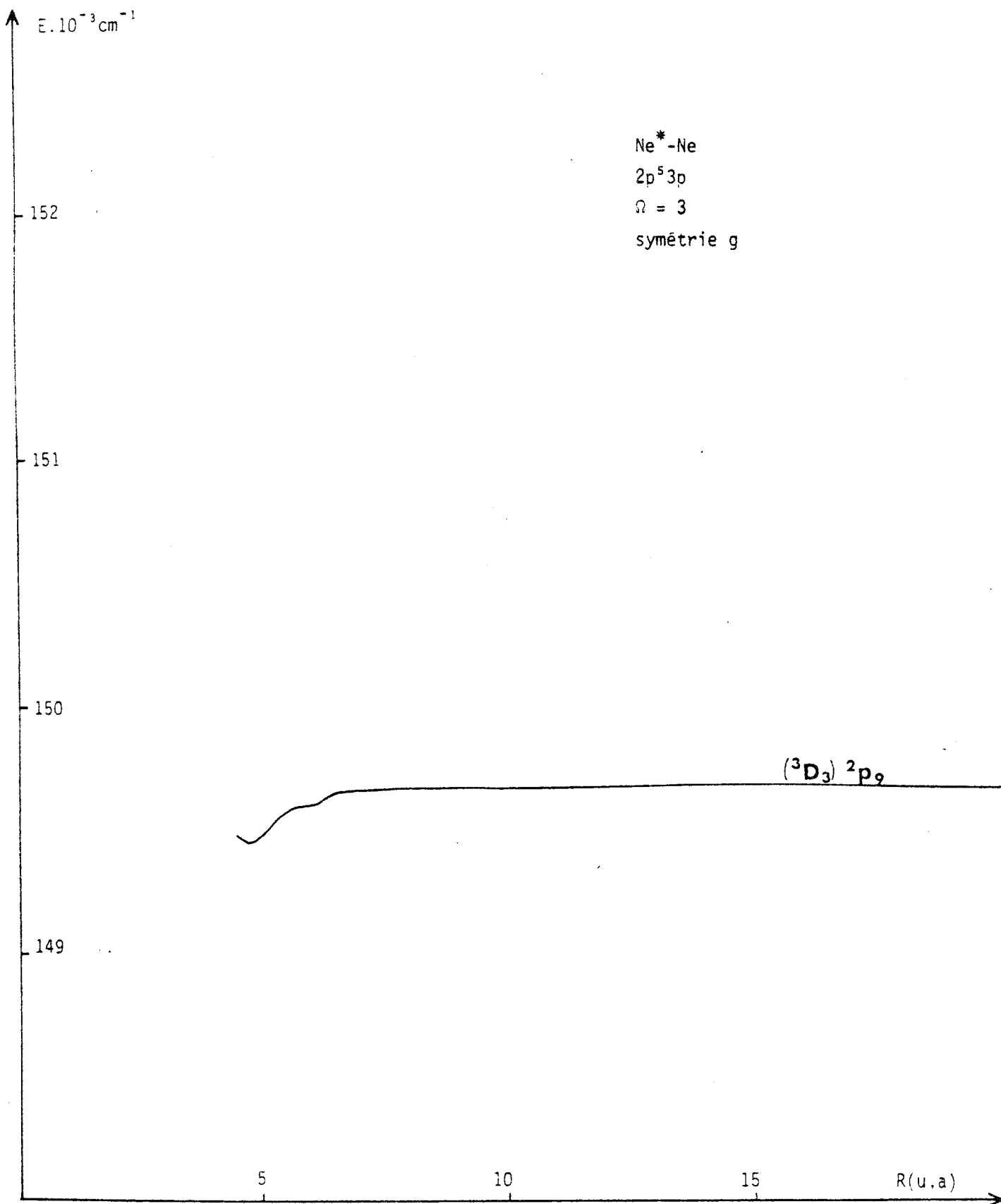
Figuur 8-11



Figuur 8-12



Figuur 8-13



Figuur 8-14