

Table 1. Identified lines in the EUVE observations of RE0503–289. Lower and upper levels are the configuration or the energy (cm^{-1} , for elements with an atomic number $Z \geq 20$). f is the oscillator strength, W_λ the observed equivalent width, and v_{rad} the measured radial velocity. “unid.” denotes observed but as yet unidentified lines. The theoretical wavelengths correspond to those given by NIST for He, C, N, O, Si, P, S, As, and Sn, by Kurucz (1991, 2009, 2011) for Fe, and Ni, and by Rauch et al. (2014a, 2015b, 2012, 2016c,a,b, 2015a, 2014b) for Zn, Ga, Ge, Kr, Zr, Mo, Xe, and Ba, respectively.

Ion	Levels		f	$W_\lambda / \text{m}\text{\AA}$	Wavelength/ \AA		$v_{\text{rad}} / \text{km/s}$	Comment
	Lower	Upper			Theoretical	Observed		
He II	1	6	7.80×10^{-3}		234.347			newly identified
He II	1	5	1.39×10^{-2}		237.331			Vennes et al. (1998)
He II	1	4	2.90×10^{-2}		243.026			Vennes et al. (1998)
C IV	2p $^2\text{P}_{1/2}$	6s $^2\text{S}_{1/2}$	1.32×10^{-3}		247.341			newly identified
C IV	2p $^2\text{P}_{3/2}$	6s $^2\text{S}_{1/2}$	1.32×10^{-3}		247.407			newly identified
He II	1	3	7.91×10^{-2}		256.316			Vennes et al. (1998)
C IV	2p $^2\text{P}_{1/2}^0$	5d $^2\text{D}_{3/2}$	4.57×10^{-2}		259.468			
C IV	2p $^2\text{P}_{3/2}^0$	5d $^2\text{D}_{5/2}$	4.11×10^{-2}		259.539			
C IV	2p $^2\text{P}_{3/2}^0$	5d $^2\text{D}_{3/2}$	4.56×10^{-3}		259.540			
C IV	2p $^2\text{P}_{1/2}$	5s $^2\text{S}_{1/2}$	2.64×10^{-3}		262.547			
C IV	2p $^2\text{P}_{3/2}$	5s $^2\text{S}_{1/2}$	2.64×10^{-3}		262.621			
O IV	2p ² $^2\text{D}_{5/2}$	3d $^2\text{D}_{5/2}^0$	1.48×10^{-1}		266.931			
O IV	2p ² $^2\text{D}_{3/2}$	3d $^2\text{D}_{5/2}^0$	1.60×10^{-2}		266.941			
O IV	2p ² $^2\text{D}_{5/2}$	3d $^2\text{D}_{3/2}^0$	1.07×10^{-2}		266.971			
O IV	2p ² $^4\text{P}_{3/2}$	3s $^4\text{P}_{5/2}^0$	5.18×10^{-2}		271.990			
O IV	2p ² $^4\text{P}_{1/2}$	3s $^4\text{P}_{3/2}^0$	9.58×10^{-2}		272.076			
O IV	2p ² $^4\text{P}_{5/2}$	3s $^4\text{P}_{5/2}^0$	8.05×10^{-2}		272.127			
O IV	2p ² $^4\text{P}_{3/2}$	3s $^4\text{P}_{3/2}^0$	1.53×10^{-2}		272.173			
O IV	2p ² $^4\text{P}_{1/2}$	3s $^4\text{P}_{1/2}^0$	1.91×10^{-2}		272.176			
O III	2p ² $^3\text{P}_1$	4s $^3\text{P}_2^0$	4.61×10^{-3}		280.109			
O III	2p ² $^3\text{P}_0$	4s $^3\text{P}_1^0$	1.11×10^{-2}		280.234			
O III	2p ² $^3\text{P}_2$	4s $^3\text{P}_2^0$	8.30×10^{-3}		280.261			
O III	2p ² $^3\text{P}_1$	4s $^3\text{P}_1^0$	2.77×10^{-3}		280.323			
O III	2p ² $^3\text{P}_1$	4s $^3\text{P}_0^0$	3.69×10^{-3}		280.408			
O III	2p ² $^3\text{P}_2$	4s $^3\text{P}_1^0$	2.76×10^{-3}		280.474			
N IV	2p $^3\text{P}_0^0$	3d $^3\text{D}_1$	6.21×10^{-1}		283.417			newly identified
N IV	2p $^3\text{P}_1^0$	3d $^3\text{D}_2$	4.59×10^{-1}		283.465			newly identified
N IV	2p $^3\text{P}_1^0$	3d $^3\text{D}_1$	1.53×10^{-1}		283.468			newly identified
N IV	2p $^3\text{P}_2^0$	3d $^3\text{D}_3$	4.14×10^{-1}		283.574			newly identified
N IV	2p $^3\text{P}_2^0$	3d $^3\text{D}_2$	9.20×10^{-2}		283.581			newly identified
N IV	2p $^3\text{P}_2^0$	3d $^3\text{D}_1$	6.17×10^{-3}		283.584			newly identified
C IV	2p $^2\text{P}_{1/2}^0$	4d $^2\text{D}_{3/2}$	1.22×10^{-1}		289.141			
C IV	2p $^2\text{P}_{3/2}^0$	4d $^2\text{D}_{5/2}$	1.01×10^{-1}		289.292			
C IV	2p $^2\text{P}_{3/2}^0$	4d $^2\text{D}_{3/2}$	1.22×10^{-2}		289.231			
O IV	2p ² $^2\text{P}_{3/2}$	3d $^2\text{P}_{3/2}^0$	7.07×10^{-2}		299.853			newly identified

Table 1. Continued.

Ion	Levels		f	$W_\lambda /$ mÅ	Wavelength / Å		$v_{\text{rad}} /$ km/s	Comment
	Lower	Upper			Theoretical	Observed		
He II	1	2	4.16×10^{-1}		303.783			newly identified
C IV	2s $^2S_{1/2}$	3p $^2P_{3/2}^o$	1.36×10^{-1}		312.420			
C IV	2s $^2S_{1/2}$	3p $^2P_{1/2}^o$	6.78×10^{-2}		312.451			
C III	2s ² 1S_0	3s' $^1P_1^o$	4.51×10^{-2}		322.574			newly identified
C III	2p $^3P_2^o$	6d 3D_1	2.71×10^{-4}		327.171			newly identified
C III	2p $^3P_2^o$	6d 3D_1	4.04×10^{-3}		327.171			newly identified
C III	2p $^3P_2^o$	6d 3D_1	2.56×10^{-2}		327.171			newly identified
O III	2p ² 3P_1	3s $^3P_0^o$	2.78×10^{-2}		374.328			
O III	2p ² 3P_2	3s $^3P_1^o$	2.08×10^{-2}		374.432			
C IV	2s $^2P_{1/2}^o$	3d $^2D_{3/2}$	6.44×10^{-1}		384.031			
C IV	2s $^2P_{3/2}^o$	3d $^2D_{5/2}$	5.80×10^{-1}		384.174			
C IV	2s $^2P_{3/2}^o$	3d $^2D_{3/2}$	6.43×10^{-2}		384.190			
C IV	2p $^2P_{1/2}^o$	3s $^2S_{1/2}$	3.76×10^{-2}		419.525			
C IV	2p $^2P_{3/2}^o$	3s $^2S_{1/2}$	3.76×10^{-2}		419.714			
O III	2p ³ $^3D_2^o$	3s 3P_2	6.86×10^{-3}		434.320			
O III	2p ³ $^3D_1^o$	3s 3P_2	2.88×10^{-2}		434.329			
O III	2p ³ $^3D_2^o$	3s 3P_1	6.44×10^{-4}		434.648			
O III	2p ³ $^3D_1^o$	3s 3P_1	1.60×10^{-2}		434.657			
O III	2p ³ $^3D_1^o$	3s 3P_0	2.13×10^{-2}		434.846			
Kr VI	115479	338447	5.78×10^{-1}		448.495			newly identified
Kr VI	115479	338364	1.71×10^{-1}		448.662			newly identified
Kr VI	115479	338119	1.13		449.156			newly identified
He I	1s 1S	4p $^1P^o$	2.99×10^{-2}		522.213			newly identified
He I	1s 1S	3p $^1P^o$	7.35×10^{-2}		537.030			newly identified
O III	2p ³ $^3D_2^o$	3p 3P_1	6.20×10^{-5}		554.759			newly identified
O III	2p ³ $^3D_1^o$	3p 3P_1	1.52×10^{-3}		554.773			newly identified
O III	2p ³ $^3D_1^o$	3p 3P_0	2.05×10^{-3}		555.026			newly identified
He I	1s 1S	2p $^1P^o$	2.76×10^{-1}		584.334			newly identified
O V	2p' 3D_1	4d' $^3D_2^o$	1.38×10^{-2}		609.591			newly identified
O IV	2p ² $^4P_{1/2}$	2p ³ $^4S_{3/2}^o$	1.26×10^{-1}		624.619			newly identified
O IV	2p ² $^4P_{3/2}$	2p ³ $^4S_{3/2}^o$	1.26×10^{-1}		625.127			newly identified
O IV	2p ² $^4P_{5/2}$	2p ³ $^4S_{3/2}^o$	1.26×10^{-1}		625.853			newly identified
O IV	3p $^2P_{1/2}^o$	3p' $^2P_{3/2}$	6.22×10^{-2}		626.198			newly identified
O IV	3p $^2P_{1/2}^o$	3p' $^2P_{1/2}$	1.24×10^{-1}		626.446			newly identified
O IV	3p $^2P_{3/2}^o$	3p' $^2P_{3/2}$	1.56×10^{-1}		626.539			newly identified
O IV	3p $^2P_{3/2}^o$	3p' $^2P_{1/2}$	3.11×10^{-2}		626.786			newly identified
C IV	3d $^2D_{3/2}$	7f $^2F_{5/2}^o$	2.58×10^{-2}		627.102			newly identified
C IV	3d $^2D_{5/2}$	7f $^2F_{5/2}^o$	1.23×10^{-3}		627.143			newly identified

Table 1. Continued.

Ion	Levels		f	$W_\lambda /$ mÅ	Wavelength / Å		$v_{\text{rad}} /$ km/s	Comment
	Lower	Upper			Theoretical	Observed		
C IV	3D $^2D_{5/2}$	7f $^2F_{7/2}^o$	2.45×10^{-2}		627.144			newly identified

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