Table   S-Coefficients (G, H) of X(*) in ETC Part 5

X(*)	G(a, b, c)	H(a, b, c)
X(7411)	$2S^2+3abc\$a\$$	$-2S^2-4abc\$a\$$
X(7412)	$-2S^2+abc\$a\$$	$2S^2$
X(7413)	$6(E+F)F\$a\$S^2-4\$a\$S^4$ $+2(E+F)\$aS_A\$S^2+2(E+F)^2\$aS_A^2\$$ $-6\$aS_A^2\$S^2-2\$aS_A^4\$+2\$aS_B^2S_C^2\$$	$-3(E+F)F\$a\$S^2+(E+F)^3\$aS_A\$$ $-4(E+F)\$aS_A\$S^2+(E+F)^2\$aS_A^2\$$ $+(E+F)^2\$aS_BS_C\$-2(E+F)\$aS_A^3\$$
X(7414)	$3FS^2-3F\$abS_C\$$	$(2E-F)S^2+2\$ab\$S^2$
X(7415)	$8(E+F)F\$a\$S^2+2\$a\$S^4+(E+F)^3\$aS_A\$$ $-4(E+F)\$aS_A\$S^2+2\$aS_A\$FS^2$ $+3(E+F)^2\$aS_A^2\$ +2\$aS_A^2\$S^2-2\$aS_A^2\$$ $S^2+(E+F)^2\$aS_BS_C\$+2\$aS_BS_C\$S^2$ $+2\$aS_BS_C\$S^2-2(E+F)\$aS_A^3\$-2\$aS_A^4\$$	$2(E+F)^2\$a\$S^2-6\$a\$S^4+2(E+F)\$aS_A\$S^2$ $-4\$aS_A^2\$S^2$
X(7416)	$2(E+F)F\$a\$S^2-4\$a\$S^4+(E-2F)abcS^2$ $+F\$aS_A\$S^2+2(E+F)^2\$aS_A^2\$$ $-5\$aS_A^2\$S^2-2\$aS_A^4\$$	$2(E+F)(2E+F)\$a\$S^2-5\$a\$S^4$ $-2(2E+F)abcS^2+2(E+F)^2\$aS_A\$$ $-8\$aS_A^2\$S^2+\$aS_BS_C\$S^2-2\$aS_A^4\$$
X(7417)	$(E-8F)S^2$	$-2(E+F)^3+6(E+F)S^2$
X(7418)	$6(E+F)^2F - (3E-6F)S^2$	$3(E+F)^2(E-2F)+2(E+F)S^2$
X(7419)	$2(E+F)^2(E-2F)\$a\$-3(3E-8F)\$a\$S^2$ $+2(E+F)(E-2F)\$aS_A\$-6\$aS_A\$S^2$ $+(E-2F)\$aS_BS_C\$+4(2E+5F)\$aS_A^2\$$ $-12\$aS_A^3\$$	$4(E+F)^3\$a\$ -12(E+F)\$a\$S^2$ $+4(E+F)^2\$aS_A\$-6\$aS_A\$S^2$ $+2(E+F)\$aS_BS_C\$-8(E+F)\$aS_A^2\$$
X(7420)	$2(E+F)\$a\$S^2+(E+F)(2E+3F)abc$ $-3abcS^2-\$aS_A\$S^2+(2E+3F)\$aS_A^2\$$	$(E-F)\$a\$S^2-2(E+F)^2abc+4abcS^2$ $+\$aS_A\$S^2-2(E+F)\$aS_A^2$
X(7421)	$2(E+3F)\$a\$S^2+2(E+F)Fabc$ $+6abcS^2+4\$aS_A\$S^2+2F\$aS_A^2\$$	$(E-6F)\$a\$S^2+(E+F)(E-2F)abc$ $-6abcS^2-4\$aS_A\$S^2+(E-2F)\$aS_A^2\$$
X(7422)	$6(E+F)F-2S^2$	$(E+F)(E-8F)$
X(7423)	$2(E+F)^2F\$a\$S^2-(3E-8F)\$a\$S^4$ $-(E+F)(E-8F)abcS^2$ $+2\{(E+F)E-S^2\}\$a\mathbf{S_A}\$S^2$ $+(E+8F)\$aS_A^2\$S^2-2(E+F)^2\$aS_A^3\$$	$(E+F)^2(2E+F)\$a\$S^2-2(3E+2F)\$a\$S^4$ $+2(E+F)^4abc-6(E+F)^2abcS^2$ $+(E+F)^4\$aS_A\$-4(E+F)^2\$aS_A\$S^2$ $-2\$a\mathbf{S_A}\$S^4+3(E+F)^3\$aS_A^2\$$ $-4(E+F)\$aS_A^2\$S^2+(E+F)^3\$aS_BS_C\$$ $-2(E+F)^2\$aS_A^3\$-2\$aS_A^3\$S^2$
X(7424)	$(E^2+32EF+9F^2-18S^2)\$a\$S^2$ $-(E+F)(E^2-28EF-56F^2+10S^2)abc$	$-(4E^2+44EF+40F^2-26S^2)\$a\$S^2-2\$a\$S^4$ $-(E+F)(6E^2+30EF+24F^2-26S^2)abc$

	-(2E-34F)abcS^2-(E+F)^2(E-8F)aS_A -4(E-13F)aS_AS^2 +(6E^2-21EF-12S^2)aS_A^2 -(E+F)(E-8F)aS_BS_C+2aS_BS_CS^2 -2(E-17F)aS_A^3– 2aS_A^4- 36aF^{2}S^2 -4(E+F)^2aS^2+ 40(E+F)FaS^2	+(4E-50F)abcS^2+2(E-8F)aS_AS^2 -(6E^2+30EF+24F^2-24S^2)aS_A^2
X(7425)	6(E+F)FaS^2-4aS^4 +2(E+F)aS_AS^2 +2(E+F)^2aS_A^2-6aS_A^2S^2 -2aS_A^4+2$aS_B^2S_C^2$	2(E+F)(2E+F)aS^2-2aS^4 +2(E+F)^{3}abc-2(E+F)abcS^2 +(E+F)^3aS_A-4(E+F)aS_AS^2 +3(E+F)^2aS_A^2-2aS_A^2S^2 +(E+F)^2aS_BS_C-2(E+F)aS_A^3
X(7426)	-E-10F	6E+6F
X(7427)		
X(7428)	2FaS^2-2abcS^2+(E+F)aS_A^2 - aS_A^3	-(E+F)aS^2+2abcS^2 -aS_AS^2
X(7429)	2FaS^2+6(E+F)Fabc -2abc S^2 -2(E-2F)aS_A^2+2aS_A^3	(E-7F)aS+(E+F)(E-8F)abc -(E+F)^2aS_A +4aS_AS^2-9FaS_A^2 -(E+F)aS_BS_C +2aS_A^3
X(7430)		
X(7431)		
X(7432)		
X(7433)		
X(7434)	(E+F)(E-17F)aS^2+9aS^4 -5(E+F)aS_AS^2-aS_BS_CS^2 -6(E+F)^2aS_A^2+16aS_A^2S^2 + 6aS_A^4-6$aS_B^2S_C^2$	-2(E+F)^4a+6(E+F)^2aS^2 -2(E+F)^3aS_A+3(E+F)aS_AS^2 -(E+F)^2aS_BS_C +4(E+F)^2aS_A^2
X(7435)		
X(7436)	(E+F)(E-3F)FaS^2+4aFS^4 -2(E+F)^{3}Fabc+6(E+F)FS^{2}abc -(E+F)^{3}FaS_A+2(2E+F)FaS_AS^2 -5(E+F)^{2}FaS_A^2+6aS_A^2FS^2 -(E+F)^{2}FaS_BS_C-2Fa**S$_B$S$_C$**S^2 +2(E+F)FaS_A^3 + **2F**aS_A^4,	-2(E+F)^{2}FaS^2+(E-2F)aS^4 +(E+F)(E-8F)abcS^2 -2(E+F)FaS_AS^2 +(E-2F)aS_A^2S^2
X(7437)	4(2E-F)FS^2–4S^4+4(E+F)^2(E+3F)ab -8(E+F)abS^2	4(E+F)(2E+F)S^2+4S^4-8(E+F)^3ab +2(13E+5F)abS^2+12(E+F)^2abS_C

	$-6(E+F)(E+3F)\$abS_C\$+8\$abS_C\$S^2$ $-4(E+3F)\$abS_AS_B\$+2(E+3F)\$abS_C^2\$$	$-10\$abS_C\$S^2+8(E+F)\$abS_AS_B\$$ $-4(E+F)\$abS_C^2\$$
X(7438)		
X(7439)	$(E+F)^2(8E+5F)\$a\$S^2-(3E-8F)\$a\$S^4$ $+2(E+F)^4abc\ -(E+F)(7E-2F)abcS^2$ $+(E+F)^4\$aS_A\$\ -2(E+F)(2E+3F)\$aS_A\$$ $S^2-2\$aS_A\$S^4+3(E+F)^3\$aS_A^2\$$ $+(E+8F)S^2\$aS_A^2\$+(E+F)^3\$aS_BS_C\$\ -$ $-2(E+F)\$aS_BS_C\$S^2-4(E+F)^2\$aS_A^3\$$ $+2\$aS_A^5\$$	$2(E+F)^3\$a\$S^2-4(E+F)\$a\$S^4$ $+2(E+F)^2\$aS_A\$\ S^2-6(E+F)\$aS_A^2\$S^2$
X(7440)		
X(7441)	$5(E+F)F\$a\$S^2-\ 4\$a\$S^4+2(E+F)^3abc$ $-6(E+F)abcS^2+(E+F)^3\$aS_A\$$ $-4(E+F)\$aS_A\$S^2+5(E+F)^2\$aS_A^2\$-$ $6\$aS_A^2\$S^2+(E+F)^2\$aS_BS_C\$$ $-2(E+F)\$aS_A^3\$\ -2\$aS_A^4\$$ $+2\$aS_B^2S_C^2\$$	$-2(E+F)^3abc+6(E+F)abcS^2$ $+2(E+F)\$aS_A\$S^2-2(E+F)^2\$aS_A^2\$$
X(7442)	$2S^4+6abc\$a\$S^2+2E\$a\$^2S^2+8\$a\$^4S^2$ $-4abcE\$a\$^3+16abc\$a\$^5$	$-2S^4-2abc\$a\$S^2+5E\$a\$^2S^2{}^5\$a\$^4S^2$ $+10abcE\$a\$^3-12abc\$a\$^5$
X(7443)		
X(7444)	$4(E+F)^2F\$a\$-6E\$a\$S^2$ $+4(E+F)F\$aS_A\$-2\$aS_A\$S^2$ $+2F\$aS_BS_C\$+4(E-F)\$aS_A^2\$\qquad -$ $4\$aS_A^3\$$	$2(E+F)^2(E-2F)\$a\$-(5E-4F)\$a\$S^2$ $+2(E+F)(E-2F)\$aS_A\$-2\$aS_A\$S^2$ $+(E-2F)\$aS_BS_C\$-4(E-2F)\$aS_A^2\$$
X(7445)		
X(7446)		
X(7447)	$4F\$a\$S^2-4abcS^2$ $+2(E+F)\$aS_A^2\$\ -2\$aS_A^3\$$	$-(4E+5F)\$a\$S^2+2(E+F)^2abc+6abcS^2$ $+(E+F)^2\$aS_A\$+2\$aS_A\$S^2$ $+(E+F)\$aS_BS_C\$-3(E+F)\$aS_A^2\$$ $+4\$aS_A^3\$$
X(7448)		
X(7449)		
X(7450)		
X(7451)	$8S^2-abc\$a\$$	$-12S^2+abc\$a\$$
X(7452)	$2(2E-3F)F\$a\$S^2+2(E+F)(2E-F)Fabc$ $-2FabcS^2+2(E-2F)F\$aS_A^2\$$	$(2E+F)F\$a\$S^2-2\$a\$S^4+2(E+F)^2Fabc$ $-2EabcS^2-(E+F)^2F\$aS_A\$+4F\$aS_A\$S^2$

	$+2F\$aS_A{}^3\$$	$+(E+F)F\$aS_A{}^2\$-2\$aS_A{}^2\$S^2$
		$-(E+F)F\$aS_BS_C\$+2F\$aS_A{}^3\$$
X(7453)		
X(7454)	$3F\$a\$S^2-2(E+F)(E-2F)abc+4abcS^2$	$(E-8F)\$a\$S^2+3(E+F)(E-2F)abc-6abcS^2$
	$-(E+F)^2\$aS_A\$+6\$aS_A\$S^2$	$-2\$aS_A\$ S^2+3(E-2F)\$aS_A{}^2\$$
	$-(E+F)\$aS_BS_C\$-(5E-F)\$aS_A{}^2\$$	
	$+4\$aS_A{}^3\$$	
X(7455)	$4(E+F)F\$a\$S^2-6\$a\$S^4+(13E-2Fabc S^2$	$-4(E+F)F\$a\$S^2+2\$a\$S^4-2(8E-F)abcS^2$
	$+(E+2F)\$aS_A\$S^2+4(E+F)^2\$aS_A{}^2\$$	$+F\$aS_A\$S^2-4(E+F)^2\$aS_A{}^2\$+5\$aS_A{}^2\$$
	$-8\$aS_A{}^2\$-4\$aS_A{}^4\$$	$-2\$aS_BS_C\$S^2$
X(7456)	$4S^2-abc\$a\$$	$abc\$a\$$
X(7457)	$3(2E+F)\$a\$S^2-2(E+F)^2abc-14abcS^2$	$-2(E+F)\$a\$S^2-2\$aS_A\$S^2+12abcS^2$
	$-(E+F)^2\$aS_A\$+(E+F)\$aS_A{}^2\$$	
	$-(E+F)\$aS_BS_C\$-2\$aS_A{}^3\$$	
X(7458)		
X(7459)		
X(7460)	$2(2E-F)\$a\$S^2-4(E+F)^2 abc +8abcS^2$	$(E-4F)\$a\$S^2+2(E+F)(E-F)abc-6abcS^2$
	$+2\$aS_A\$S^2-4(E+F)\$aS_A{}^2\$$	$-2\$aS_A\$S^2+2(E-F)\$aS_A{}^2\$$
X(7461)		
X(7462)	$2(E+F)(E-2F)\$a\$S^2-2\$a\$S^4$	$-(E+F)(2E+F)\$a\$S^2+6\$a\$S^4$
	$+2(E+F)^3abc-6(E+F)abcS^2$	$-2(E+F)^3abc+6(E+F)abcS^2$
	$-2(E+F)\$aS_A\$S^2+2\$aS_A{}^4\$$	$-(E+F)^3\$aS_A\$+4(E+F)\$aS_A\$S^2$
	$-2\$aS_B{}^2S_C{}^2\$$	$-(E+F)^2\$aS_BS_C\$-3(E+F)^2\$aS_A{}^2\$$
		$+6\$aS_A{}^2\$S^2+2(E+F)\$aS_A{}^3\$$
X(7463)		
X(7465)	$(E+F)(3E+2F)+(4E+3F)\$ab\$$	$-2(E+F)^2-2(E+F)\$ab\$$
	$-\$abS_C\$$	
X(7466)	$2FS^2+(E+F)F\$ab\$-F\$abS_C\$$	$-2(E+F)S^2-2(E+F)^2\$ab\$+2(E+F)\$abS_C\$$
X(7467)	$(E+F)^7+(E+F)^4(E+5F)S^2$	$-4(E+F)^7+3(E+F)^4(E-3F)S^2$
	$-(E+F)(5E^2+EF-8F^2)S^4+3FS^6$	$+(E+F)^2(4E-3F) S +(E+F)S^6$
X(7468)	$3(E^3+E^2F+8EF^2+8F^3)-2(7E-11F)S^2$	$-6(E^3+6E^2F+9EF^2+4F^3)+2(16E-11F)S^2$
X(7469)		
X(7470)	$2(E+F)^5(E-2F)$	$^-3(E+F)^5(E-2F)+2S^6$
	$-2(E+F)^2(2E^2-3EF+4F^2)S^2$	$+(E+F)^2(5E^2-8EF+14F^2)S^2$
	$-2(2E^2+4EF+2F^2)S^4$	$-(8E^2+EF-10F^2)S^4$

X(7471)	$2E^2+4EF-8F^2-8S^2$	$-5E^2-37EF-32F^2+24S^2$
X(7472)	$(E+F)^2(E-2F)-2(2E-7F)S^2$	$-2(E+F)^3+9(E-2F)S^2$
X(7473)	$(E+F)(E+10F)F-6FS^2$	$-6(E+F)^2F+(E+10F)S^2$
X(7474)	$E-2F+2ab$	$-2E+2F$
X(7475)	$4(E+F)(7E-2F)FaS^2$ $-2(7E-20F)aS^4+2(E+F)^3(E+4F)abc$ $-2(E+F)(7E-20F)abcS^2$ $+2(E-8F)aS_AFS^2+4(E+F)^2(E-2F)$ $aS_A^2-2(7E-20F)aS_A^2S^2-2(E-8F)$ $aS_A^2S^2+2(E-8F)aS_BS_CS^2-$ $2(E-8F)aS_A^4$	$-6(E+F)^2(E+4F)aS^2+6(5E-4F)aS^4$ $-8(E+F)^4abc+36(E+F)(E-2F)abcS^2$ $+2(E-8F)(E+F)aS_AS^2-8(E+F)^3aS_A^2$ $+6(5E-4F)aS_A^2S^2$
X(7476)	$3(E+F)(4E+9F)FaS^2-12FaS^4$ $+6(E+F)^3Fabc-6(E+F)FabcS^2$ $-3(E+F)^3FaS_A+6(2E+F)FaS_AS^2$ $-3(E+F)^2FaS_A^2-6FaS_A^2S^2$ $-3(E+F)^2FaS_BS_C-6FaS_BS_CS^2$ $+6(E+F)FaS_A^3+6FaS_A^4]S^2$	$-2(E+F)^2(2E+5F)aS^2+9(E+2F)aS^4$ $-4(E+F)^4abc+9(E+F)EabcS^2$ $-6(E+F)FaS_AS^2-4(E+F)^3aS_A^2$ $+9(E+3F)aS_A^2S^2$
X(7477)		
X(7478)		
X(7479)		
X(7480)	$(E^2+20EF-8F^2)F-8FS^2$	$-2(5E^2+EF-4F^2)F+2(E+4F)S^2$
X(7481)	$2(E+F)^4(E+4F)a$ $-2(E+F)(6E^2+31EF-56F^2)aS^2$ $+12(2E-7F)aS^4$ $+2(E+F)^3(E+4F)aS_A$ $-3(E+F)(5E-16F)aS_AS^2$ $+(E+F)^2(E+4F)aS_BS_C$ $-6(E-2F)aS_BS_CS^2$ $-2(E+F)^2(5E-16F)aS_A^2$ $+36(E-4F)aS_A^2S^2+6(E-8F)aS_A^4$	$-8(E+F)^5a+(E+F)^2(13E+4F)aS^2$ $+(E+F)^2(35E-64F)aS^4$ $-12(4E-5F)aS^6-8(E+F)^4aS_A$ $+(E-8F)(E+F)aS_AS^2$ $+8(E+F)(4E-5F)aS_AS^4$ $-4(E+F)^3aS_BS_C-7(E-8F)aS_BS_CS^2$ $+4(4E-5F)aS_BS_CS^4+16(E+F)^3aS_A^2$ $+4(E-8F)aS_A^2S^2-16(4E-5F)aS_A^2S^4$
X(7482)	$6(E+F)^2F-6FS^2$	$-4(E+F)^3+9ES^2$
X(7483)	$-F$	$E+2F$
X(7484)	$2E+F$	$-E-F$
X(7489)	$3abca+4S^2$	$abca-4S^2$
X(7490)	$4F$	$-a^2$
X(7491)	$abca+2S^2$	$-abca-6S^2$

X(7497)	-aF	(2E+F)a+2abc
X(7498)	a^{2}F	S^2+abc$a$
X(7501)	-2aF	(E+2F)a+abc
X(7504)	abc$a$+6S^2	2S^2
X(7508)	3abc$a	-abc$a$-8S^2
X(7510)	Fa^{2}	-Fa^{2}+4abc$a$+4S^2
X(7511)	-Fa	(2E+3F)a+2abc
X(7513)	-2F	4F-a^{2}
X(7515)	abc$a$+S^2	-abc$a$-S^2
X(7518)	Fa^{2}	4abc$a$+4S^2
X(7520)	(E+2F)a+abc	-2(E+F)a-2abc
X(7521)	-2Fa	(E+F)a+abc
X(7522)	-4F+a^{2}	a^{2}
X(7523)	(2E+F)a+2abc	- (E + F)a - abc
X(7524)	-Fa^{2}	-Fa^{2}
X(7531)	2Fa^{2}	-Fa^{2}+2abc$a$+2S^2
X(7532)	Fa^{2}+abc$a$+S^2	abc$a$+S^2
X(7534)	F	F-a^{2}
X(7535)	(E-F)a+abc	(E+F)a+abc
X(7536)	4F+a^{2}	-a^{2}
X(7537)	-2Fa	Ea+abc
X(7538)	-Fa^{2}+2abc+2S^2	-4abc$a$-4S^2
X(7540)	-E-4F	9E+12F
X(7541)	-Fa^{2}	-2Fa^{2}+2abc$a$+2S^2
X(7543)	4F	2F-a^{2}
X(7546)	F	-F-a^{2}
X(7547)	2F	E+6F
X(7548)	abc$a$+2S^2	2abc$a$+6S^2
X(7549)	(E+F)a+abc	-Fa
X(7551)	2Fa^{2}	Fa^{2}+2abc$a$+2S^2
X(7554)	4F	-2F-a^{2}
X(7555)	7E+16F	-13E-16F
X(7557)	Ea+abc	2(E+F)a+2abc
X(7559)	Fa	(E+3F)a+abc
X(7560)	a^{2}+2F	-2a^{2}

X(7561)	(E+3F)a+abc	-(E+F)a-abc
X(7562)	(E-2F)a+abc	(3E+2F)a+3abc
X(7563)	2F	4F+a^2
X(7564)	E+4F	5E+12F
X(7565)	E+4F	6E+12F
X(7567)	2abc$a$+2S^2	Fa^2
X(7568)	5E+12F	-3E-4F
X(7570)	9E+12F	4E+4F
X(7572)	Fa^2+4abc$a$+4S^2	-2abc$a$-2S^2
X(7573)	2F -2a^2	a^2
X(8727)	S^2	2abc$a$+S^2
X(8728)	2abc$a$+S^2	S^2
X(9715)	E+3F	-2E-3F
X(9832)	(E+F)^2(E-2F)-(E+10F)S^2	-2(E+F)^3+6(E+F)S^2
X(9855)	(E+F)^2-9S^2	18S^2